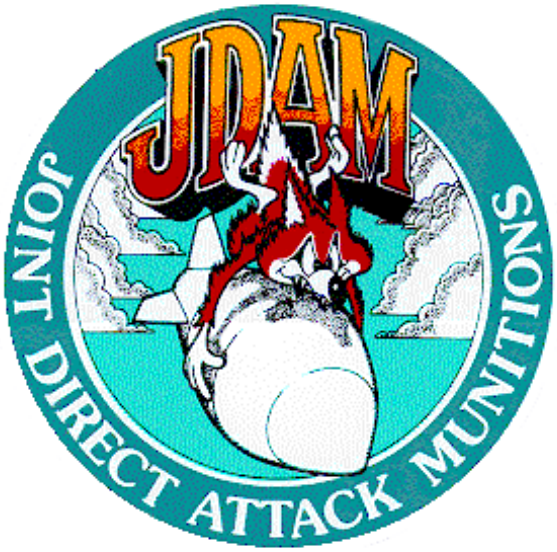
NAVY TRAINING SYSTEM PLAN

FOR THE

JOINT DIRECT ATTACK MUNITION

GBU-31(V)2/B, GBU-31(V)4/B, GBU-32(V)2/B, GBU-35(V)1/B



N78-NTSP-A-50-9104A/P

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JOINT DIRECT ATTACK MUNITION

EXECUTIVE SUMMARY

This Navy Training System Plan (NTSP) has been developed in accordance with Office of the Chief of Naval Operations Instruction (OPNAVINST) 1500.76 to identify the life-cycle manpower, personnel, and training requirements associated with the Joint Direct Attack Munition (JDAM) system.

JDAM is a family of guided air-to-surface weapons that is comprised of the GBU-31(V)2/B, GBU-31(V)4/B, GBU-32(V)2/B, and GBU-35(V)1/B for the United States Navy (USN) and United States Marine Corps (USMC). Other JDAM configurations exist for the United States Air Force (USAF). The JDAM concept is to repurpose bombs in the inventory and add guidance sets to increase accuracy and lethality of these existing assets. JDAM uses the MK 84, BLU-109, MK 83, or the BLU-110 warheads, respectively, as the payload. Guidance sets are tailored to each payload and include a tail control system and a Global Positioning System (GPS)-aided Inertial Navigation System (INS). Once released from the aircraft, JDAM autonomously navigates from the release point to the target. When GPS data is available during free flight, JDAM provides a weapon Circular Error Probable (CEP) of 13 meters or less. If GPS data is denied during free flight, JDAM achieves a 30 meter CEP or less for time of flight up to 100 seconds. JDAM can be launched from very low to very high altitudes during dive, toss, and loft maneuvers or can be launched from straight and level flight with an on-axis or off-axis delivery.

The JDAM maintenance concept is based upon the three levels of maintenance, Organizational, Intermediate, and Depot, identified in the Naval Ordnance Maintenance Management Program (NOMMP), OPNAVINST 8000.16.

JDAM will not alter the operator (pilot) manning requirements at any organizational activity (aircraft squadron). No new skills are required for operation of JDAM. The skills required to operate the JDAM are compatible with the skills required to operate existing precision guided, weapons, therefore no new Naval Officer Billet Code, Naval Enlisted Classification (NEC), or Military Occupational Specialty (MOS) is required.

The JDAM System will not alter the manning requirements at any organizational or intermediate level maintenance activity. No new skills are required for maintenance of JDAM at the organizational or intermediate levels of maintenance. The skills required to perform maintenance on JDAM are compatible with existing skills required to perform maintenance on existing weapon systems; therefore, no new NECs or MOSs are required. Boeing Company will perform warranty and/or depot level maintenance throughout the JDAM life cycle. Therefore, JDAM will not alter the manning requirements at organic depot level maintenance activities.

Existing operator and maintenance training courses have been modified to include JDAM information without changing course lengths, instructor or student billets.

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LIST OF ACRONYMS

ABF	Advanced Bomb Family
ACDU	Active Duty
AMTCS	Aviation Maintenance Training Continuum System
AO	Aviation Ordnanceman
AOB	Average On Board
AT	Aviation Technician
BIT	Built-In Test
CAI	Computer Aided Instruction
CBT	Computer Based Training
CEP	Circular Error Probable
CMBRE	Common Munitions Bit Reprogramable Equipment
CMC	Commandant of the Marine Corps
CMI	Computer Managed Instruction
CNO	Chief of Naval Operations
COMLANTFLT	Commander U.S. Atlantic Fleet
COMPACFLT	Commander U.S. Pacific Fleet
CV	Aircraft Carrier
CVN	Aircraft Carrier Nuclear
CWTPI	Conventional Weapons Technical Proficiency Inspection
DAB	Defense Acquisition Board
DT	Developmental Test
ECR	Electronic Classrooms
EGTV	Environmental Guided Test Vehicle
EMD	Engineering & Manufacturing Development
EMI	Electro-Magnetic Interference
EOD	Explosive Ordnance Disposal
EODTEU	Explosive Ordnance Disposal Training and Evaluation Unit
ETJ	Electronic Training Jacket
FLD	Fin Lock Device
FMS	Foreign Military Sales
FOT&E	Follow-On Operational Test & Evaluation
FRS	Fleet Replacement Squadron
FTD	Fleet Training Device
FY	Fiscal Year

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LIST OF ACRONYMS

GCU	Guidance Control Unit
GPS	Global Positioning System
GPSRM	Guidance Positioning System Receiver Module
GTV	Guided Test Vehicle
ICW	Interactive Courseware
ILT	Inert Load Trainer
IMU	Inertial Measurement Unit
INS	Inertial Navigation Systems
IOC	Initial Operational Capability
IPT	Integrated Product Team
ISD	Instructional System Design
JDAM	Joint Direct Attack Munitions
JILS	Jointed Integrated Logistics Support
JILSP	Jointed Integrated Logistics Support Plan
JMPS	Joint Mission Planning System
JPF	Joint Programmable Fuze
LAR	Launch Acceptable Region
LAT	Lot Acceptance Test
LDT	Load Drill Trainer
LRC	Learning Resource Center
LRIP	Low-Rate Initial Production
MALS	Marine Aviation Logistics Squadron
MAP	Munitions Application Program
MATMEP	Maintenance Training Management & Evaluation Program
MAWTS	Medium Attack Weapon & Tactics School
MCAS	Marine Corps Air Station
MCO	Marine Corps Order
MNS	Mission Needs Statement
MOS	Military Occupational Specialty
MPCU	Mobile Power Conditioning Unit
MS	Milestone
MTIP	Maintenance Training Improvement Program
MTL	Master Task List
MTTA	Mean Time To Assemble
MTTBO	Mean Time To Break Out
MTU	Maintenance Training Unit

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LIST OF ACRONYMS

NA	Not Applicable
NALC	Naval Ammunition Logistic Code
NAMTRAGRU	Naval Air Maintenance Training Group
NAMTRAGRU DET	Naval Air Maintenance Training Group Detachment
NAMTRAU	Naval Air Maintenance Training Unit
NAS	Naval Air Station
NATEC	Naval Air Technical Engineering Center
NATTC	Naval Air Technical Training Center
NAVAIR	Naval Air Systems Command
NAVSCOLEOD	Naval Explosive Ordnance Disposal School
NAWCAD	Naval Air Warfare Center Aircraft Division
NAWCWD	Naval Air Warfare Center Weapons Division
NCEA	Non Combat Expenditure Allowance
NEC	Navy Enlisted Classification
NETC	Naval Education and Training Command
NFO	Naval Flight Officer
NOMMP	Naval Ordnance Maintenance Management Program
NS	Naval Station
NSAWC	Naval Strike Air Warfare Center
NTD	Navy Technical Directive
NTP	Navy Training Plan
NTSP	Navy Training System Plan
NTRDM	Navy Training Requirements Documentation Manual
NWS	Naval Weapons Station
OATMS	OPNAV Aviation Training Management System
OFP	Operational Flight Plan
OPEVAL	Operational Evaluation
OPNAVINST	Office of the Chief of Naval Operations Instruction
OPTEVFOR	Operational Test and Evaluation Force
ORD	Operational Requirements Doctrine
OT	Operational Test
PCMCIA	Personal Computer Memory Card International Association
PDA	Principal Development Activity
PEO	Program Executive Officer
PEST	Practical Explosive Ordnance Disposal System Trainer
PMA	Program Manager, Air

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LIST OF ACRONYMS

QUAL/CERT	Qualification and Certification
RFT	Ready For Training
RIO	Radar Intercept Officer
RLG	Ring Laser Gyro
RMS	Raytheon Missile Systems
RSP	Render Safe Procedures
SAMP	Single Acquisition Management Plan
SFARP	Strike Fighter Advanced Readiness Program
SFTI	Strike Fighter Training Instructor
SFTP	Strike Fighter Training Program
SFTS	Strike Fighter Training System
SFWE	Strike Fighter Weapons Employment
SFWS	Strike Fighter Weapon School
SFWSL	Strike Fighter Weapon School Atlantic
SFWSP	Strike Fighter Weapon School Pacific
SFWT	Strike Fighter Weapons & Tactics
SHIPALT	Ship Alteration
STRKFTRWING	Strike Fighter Wing
SWATSLANT	Strike Weapons And Tactics School Atlantic
TAMPS	Tactical Aircraft Mission Planning System
TAS	Tail Actuator Subsystem
TAU	Test Adapter Unit
TD	Training Device
TECHEVAL	Technical Evaluation
TEMP	Test and Evaluation Master Plan
TEV	Test & Evaluation
TOMA	Technical Order Management Agency
TTE	Technical Training Equipment
TSPI	Time, Space, Position Information
TYCOM	Type Commander
UIC	Unit Identification Code
USAF	United States Air Force
USMC	United States Marine Corps
USN	United States Navy
UUT	Unit Under Test

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LIST OF ACRONYMS

VCD	Verification of Correction of Deficiencies
WSEP	Weapon System Evaluation Program
WSO	Weapon Sensor Operator
WST	Weapon Systems Trainer
WTT	Weapon Training Team

JOINT DIRECT ATTACK MUNITION

PREFACE

This Proposed Navy Training System Plan (NTSP) for the Joint Direct Attack Munition (JDAM) is an update of the Draft Navy Training Plan (NTP) A-50-9101A/D that dated October 2002. It complies with Office of the Chief of Naval Operations Instruction (OPNAVINST) 1500.76 and the guidelines set forth in the Navy Training Requirements Documentation Manual (NTRDM), P-751-1-9-97.

The major changes and updates to this NTSP consist of:

PART I Updated to reflect progress made during the design, development, and testing of the JDAM System.

PART II Recalculated to depict current billet requirements of fleet support units through Fiscal Year (FY) 07.

PART III Recalculated to depict chargeable student billets through FY07.

PART IV Updated to current the training and training logistics support requirements.

PART V Updated to reflect programmatic and technical schedule changes.

PART VI Updated to include new/open action/watch items.

PART VII Updated to reflect current Points of Contact.

This document also incorporates fleet comments from Commander, Naval Air Forces Pacific, Naval Air Maintenance Training Group, Naval Air Warfare Center, Weapons Division China Lake, Marine Aviation Logistics Squadron Thirty One, Naval School, Explosive Ordnance Disposal, and SMT incorporated. These comments are general in nature.

PART I - TECHNICAL PROGRAM DATA

A. TITLE-NOMENCLATURE-PROGRAM

1. Title-Nomenclature-Acronym. Joint Direct Attack Munition (JDAM). The United States Navy (USN) and United States Marine Corps (USMC) JDAM nomenclature are: GBU-31(V)2/B, GBU-31(V)4/B, GBU-32(V)2/B, GBU-35(V)1/B.

2. Program Element. 0204162N

B. SECURITY CLASSIFICATION

1. System Characteristics ..... Unclassified

2. Capabilities ..... Unclassified

3. Functions ..... Confidential

4. Navy Training System Plan ..... Unclassified

C. NTSP PRINCIPALS

OPNAV Principal Official (OPO) Program Sponsor ..... CNO (N88)

OPO Resource Sponsor..... CNO (N880D)

Marine Corps Program Sponsor ..... CMC (ASL 30)

Developing Agency ..... PEO (W) (PMA201)

Training Agency ..... COMANTFLT
COMCPACFLT
NETC
CMC (ASM)
COMNAVRESFOR
NSAWC

Training Support Agency..... NAVAIR (PMA205)

Manpower and Personnel Mission Sponsor..... CNO (N1, N2)

Director of Naval Training ..... CNO (N00T)

Commander, Bureau of Naval Personnel (BUPERS)..... (N-4, 403, PERS 221)

Marine Corps Total Force Structure ..... MCCDC

D. SYSTEM DESCRIPTION

1. Operational Uses. The JDAM program is a joint-service program with United States Air Force (USAF) as the lead, executive service and USN as the participating service. Naval Air Systems Command, Program Manager for Conventional Strike Weapons, Program Manager, Air (PMA)-201, is the developing activity for the Navy and Marine Corps. The program evolved to support Mission Need Statement (MNS) TAF 401-91 for an adverse weather, accurate strike capability. Adverse weather is defined as natural/man-made conditions such as rain, haze, dust, smoke, fog, snow, ice, wind, and/or clouds that preclude the use of current inventory weapons. This need is shared by both fighter/attack and bomber aircraft engaged in conventional warfare. The JDAM program satisfies this need by providing guidance sets for current inventory warheads, fuzes and associated components. This NTSP addresses the Navy and Marine Corps F/A-18, AV-8 and F-14 aircraft platforms and associated JDAM configurations: GBU-31(V)2/B, GBU-31(V)4/B, GBU-32(V)2/B and GBU-35(V)1/B. The GBU-31(V)2/B uses the MK 84 2,000 pound (lb.) warhead, while the GBU-31(V)4/B uses the BLU-109 2,000 lb. warhead. The GBU-32(V)2/B uses the MK 83 1,000 lb. warhead, while the GBU-35(V)1/B uses the BLU-110 1,000 lb. warhead. The 2,000 lb. warhead JDAM variants are currently in Full-Rate Production (Lot V) after a successful Milestone (MS) III decision on 23 March 2001. The 1,000 lb. warhead JDAM variants are currently in Engineering & Manufacturing Development (EMD) with a Low-Rate Initial Production (LRIP) Lot I decision scheduled for fourth quarter FY03.

a. Joint Direct Attack Munitions. The JDAM program provides low cost guidance sets for the MK 84, BLU-109, MK 83 and BLU-110 warheads. JDAM enables employment of accurate air-to-surface munitions from fighter/attack and bomber aircraft against high priority fixed and relocatable targets. Transfer alignment from the aircraft to JDAM provides Global Positioning System (GPS) quality position and velocity state vectors that initialize the JDAM navigation system. Once released from the aircraft, JDAM autonomously guides to the designated target coordinates using its GPS-aided Inertial Navigation System (INS). Navigation errors are used to generate guidance commands for the tail fins that maneuver the weapon along the optimum flight path. Target coordinates can be mission planned and loaded into the aircraft before takeoff, manually altered by the aircrew prior to weapon release via Joint Programmable Fuze (JPF), and/or automatically entered through target designation with onboard aircraft sensors. Multiple JDAM can be directed against a single target or multiple JDAM can be directed against multiple targets on a single pass.

b. FUZES. JDAM uses the existing FMU-139 and FMU-143 fuzes, as well as the FMU-152/B Fuze JPF. The FMU-152/B allows its arm time and delay time to be programmed from the cockpit for a variety of general purpose and penetrator warheads.

c. Joint Direct Attack Munitions Product Improvement Program. The JDAM Product Improvement Program objective is to provide an enhanced precision capability for the JDAM family of weapons. Several options are being examined including GPS-related improvements, the addition of a seeker, reactive targeting, and guidance sets for additional warheads (MK 82, BLU-113, and BLU-116).

2. Foreign Military Sales. The Joint Program Office is currently pursuing Foreign Military Sales (FMS) opportunities with the United Kingdom, Italy, Israel, Canada, Australia, Greece, United Arab Emirates, and Spain.

E. DEVELOPMENTAL TEST AND OPERATIONAL TEST. The JDAM Program Test and Evaluation Master Plan (TEMP), dated 29 September 2000, contains the government's detailed test and evaluation requirements. The JDAM TEMP covers test objectives, issues, and associated risks for the Air Force and Navy. Navy F/A-18C/D Developmental Test (DT), Technical Evaluation (TECHEVAL), Operational Test (OT) and Operational Evaluation (OPEVAL) have been completed for the GBU-31(V)2/B and GBU-31(V)4/B. Follow-On Operational Test & Evaluation (FOT&E) for other JDAM variants on the F/A-18C/D, as well as on other aircraft (F/A-18E/F, F-14B/D and AV-8B) are ongoing.

1. DT/OT Not Completed

a. F/A-18C/D Integration

(1) GBU-31(V)2/B & GBU-31(V)4/B. DT objectives of the GBU-31(V)2/B and GBU-31(V)4/B have been met, with the exception of GBU-31(V)4/B compatibility with the FMU-152 JPF. Post MS III GBU-31(V)2/B and GBU-31(V)4/B DT objectives will involve resolution of the GBU-31(V)4/B FMU-152 JPF incompatibility, Lot Acceptance Test (LAT)/Weapon System Evaluation Program (WSEP) and technology insertion. Initial Operational Capability (IOC) was achieved with these JDAM configurations in May 2001.

(2) GBU-32(V)2/B & GBU-35(V)1/B. Full system integration on the F/A-18C/D aircraft is in progress with satisfactory results to date. Post Milestone III (2000 lb.) flight testing objectives will consist of completing initial full system integration testing on the F/A-18C/D aircraft, to include evaluation of changes to fin unlock timing and related autopilot software, integration on the remaining Operational Requirements Doctrine (ORD) threshold and objective aircraft, LAT/WSEP, and technology insertion in parallel with the GBU-31(V)2/B and GBU-31(V)4/B technology insertion effort. The F/A-18C/D is the initial, full system integration (threshold) fighter/attack aircraft for GBU-32(V)2/B and GBU-35(V)1/B development. Wind tunnel, captive carry, safe separation, carrier suitability, and Operational Flight Plan (OFP) 15C V&V indicate that the GBU-32(V)2/B and GBU-35(V)1/B are on track to meet threshold requirements. Nine DT Guided Test Vehicle (GTV) releases are planned to verify GBU-32(V)2/B and GBU-35(V)1/B are ready for full rate production. A planned FOT&E effort will complete carrier operability, captive carriage and release of ten GBU-32(V)2/B and GBU-35(V)1/B GTVs by Air Test & Evaluation Squadron Nine (VX-9) to support a separate GBU-32(V)2/B MS III decision. A concurrent effort will verify full system functionality of the F/A-18C/D software, OFP 15C, planned for IOC with the GBU-32(V)2/B and GBU-35(V)1/B variants.

b. F/A-18E/F Integration. The F/A-18E/F is an objective JDAM fighter/attack aircraft. Investigation of the F/A-18E/F JDAM captive carry environment was satisfactorily

completed with GBU-31(V)2/B and GBU-31(V)4/B Environmental GTV (EGTV) flights at the Naval Air Warfare Center, Aircraft Division (NAWCAD), Patuxent River, MD. Fifty Separation Test Vehicles (STV), will be released at NAWCAD to investigate weapon separation characteristics and generate a full envelope release clearance. Six GTVs will be captive carried and released at the Naval Air Warfare Center, Weapons Division (NAWCWD) to evaluate full system integration and weapon system performance. Test missions will be preplanned using the latest Tactical Aircraft Mission Planning System (TAMPS) mission planning software. Test scenarios will cover a limited spectrum of JDAM requirements and mission profiles for the fighter mission. Aircraft telemetry, range Time, Space, Position Information (TSPI), JDAM telemetry and impact scoring data will be collected and analyzed to assess aircraft system compatibility and overall weapon performance.

c. F-14B/D Integration. The F-14B and the F-14D are objective JDAM fighter aircraft. Investigation of the F-14B/D JDAM captive carry environment was satisfactorily completed with GBU-31(V)2/B EGTV flights at NAWCAD, Patuxent River, MD. Four STVs were released at NAWCAD to investigate weapon separation characteristics and generate a limited envelope release clearance. Two GTVs were captive carried and released from the F-14B and a quantity of GTVs will be captive carried and released from the F-14D to evaluate full system integration and weapon system performance. Test missions will be preplanned using the latest TAMPS mission planning software. Test scenarios will cover a limited spectrum of JDAM requirements and mission profiles for the fighter mission. Aircraft telemetry, range TSPI, JDAM telemetry and impact scoring data will be collected and analyzed to assess aircraft system compatibility and overall weapon performance. Plans are currently underway to clear a second JDAM variant (i.e., GBU-31(V)4/B, GBU-32(V)2/B) on the F-14. FOT&E of the GBU-31(V)2/B on the F-14 aircraft began in FY00. F-14B DT is complete. F-14B OT began 1st quarter FY01 and was completed 3rd quarter FY01. F-14D DT began 1st quarter FY01 and was completed 4th quarter FY01. F-14D OT began 1st quarter FY03 and is expected to be complete 3rd quarter FY03. Other JDAM configurations are expected to be integrated/evaluated in the future.

d. AV-8B Integration. The AV-8B is threshold aircraft for GBU-32(V)2/B and GBU-35(V)1/B integration. The AV-8B completed wind tunnel testing in June 1996. Integration testing was initiated in FY01 and completed in FY03. Sixteen STVs are planned to evaluate the GBU-32(V)2/B release envelope on the AV-8B. Eight GBU-32(V)2/B GTVs will be dropped to complete design, development, and validation and verification of the AV-8B OFP software, OC1.2. This will be followed by an FOT&E with 25 GBU-32(V)2/B. Aircraft handoff, weapon impact, and other data will be collected to assess system accuracy, maneuverability, and compatibility. FOT&E of the GBU-32(V)2/B and GBU-35(V)1/B on the AV-8B aircraft began 4th quarter FY01. DT begn 4th quarter FY01 and was completed 4th quarter FY02. OT began 1st quarter FY03 and is expected to complete 1st quarter FY04. Other JDAM configurations are expected to be integrated/evaluated in the future.

2. DT and OT completed

a. F/A-18C/D Integration

(1) GBU-31(V)2/B & GBU-31(V)4/B. DT objectives of the GBU-31(V)2/B and GBU-31(V)4/B have been met, with the exception of GBU-31(V)4/B compatibility with the FMU-152 JPF. Post MS III GBU-31(V)2/B and GBU-31(V)4/B DT objectives will involve resolution of the GBU-31(V)4/B FMU-152 JPF incompatibility, LAT/WSEP, integration on the ORD objective aircraft, and technology insertion. Initial OT of the JDAM was conducted in 3 phases: Combined DT/OT-IIA, OT-IIB, (the independent phase of OPEVAL), and OT-IIB (Verification of Correction of Deficiencies (VCD)). The purpose of the combined DT/OT-IIA phase was to reduce the required number of assets for DT and OT testing and gather data for the independent phase (OT-IIB). Results based on combined DT/OT data were only used when accomplished or monitored by operational aircrews and maintenance personnel and at the discretion of the Operational Test Director. OT-IIB determined operational effectiveness and operational suitability of JDAM. Data from DT/OT-IIA was used in conjunction with OT-IIB to resolve JDAM Critical Operational Issues. OT-IIB (VCD) verified correction of deficiencies identified both prior and subsequent to the OPEVAL. This phase was conducted on the F/A-18C/D with the GBU-31(V)2/B in the entire JDAM operational envelope with no flight restrictions. FOT&E (OT-III) will verify the operational effectiveness and operational suitability of the production JDAM. DT/OT-IIA, OT-IIB, and OT-IIB (VCD) was conducted by VX-9 personnel under various environmental conditions. JDAM was operated and maintained by fleet representative personnel. DT/OT-IIA was completed in October 1998. OT-IIB was completed in August 1999. OT-IIB (VCD) was completed in August 2000. IOC was achieved in May 2001.

VX-9 personnel at NAWCWD China Lake conducted combined DT/OT-IIA between July 1998 and October 1998. Production representative weapons were released from operationally representative F/A-18C/D aircraft utilizing production representative OFP13C software. The purpose of DT/OT-IIA was to gather data to be used in OPEVAL to determine operational effectiveness and operational suitability of JDAM. DT/OT-IIA was accomplished in conjunction with DT with results being utilized toward satisfying both DT and OT test plans. Combined DT/OT-IIA results were utilized in OT-IIB OPEVAL to support the MS III decision and recommendation for fleet introduction, where applicable. DT/OT-IIA included captive carriage and release of 14 certified JDAM weapons (six GBU-31(V)2/B configured with JPF and eight GBU-31(V)4/B) against fleet representative targets from F/A-18C/D aircraft. USN and USMC operationally representative personnel operated and maintained JDAM

VX-9 personnel at NAWCWD China Lake and on board aircraft carriers conducted OT-IIB OPEVAL between November 1998 and August 1999. Production representative weapons were released from operationally representative F/A-18C/D aircraft utilizing production representative OFP 13C/C+ software. Thirty-two weapons were configured with the FMU-152/B JPF LRIP-II fuzes and four weapons with DSU-33. Eleven weapons were configured with FMU-139 fuzes and two weapons were configured with FMU-143 fuzes. The purpose of OT-IIB was to determine the operational effectiveness and operational suitability of JDAM.

Results were provided to support the MS III decision. OT-IIB included employment of the JDAM against threat representative targets and emitters. OT-IIB included captive carriage and release of 58 JDAM weapons against operationally representative targets from F/A-18C/D aircraft. Approximately 100 total flights were completed, including Field Carrier Landing Practice, carrier suitability, and 200 dedicated captive carriage flight hours. Forty-five catapult and arrested landings were completed. Fleet representative personnel operated and maintained the JDAM.

VX-9 personnel at NAWCWD China Lake and on board aircraft carriers conducted OT-IIB (VCD) in the third quarter of FY00. A VCD phase was conducted on the F/A-18C/D with the GBU-31(V)2/B in the entire JDAM operational envelope. Production representative and production identical weapons were released from operationally representative F/A-18C/D aircraft utilizing the most current production representative OFP SCS 15C software. Ten weapons were configured with FMU-139 fuzes. The purpose of OT-IIB (VCD) was to determine the operational effectiveness and operational suitability of the JDAM in its full tactical flight envelope. OT-IIB (VCD) included employment of the JDAM against threat representative targets and emitters. OT-IIB (VCD) included captive carriage of 10 and release of 9 JDAM weapons with production representative pin lock Tail Actuator Subsystem (TAS). Approximately 80 total flight hours were completed which included Field Carrier Landing Practice (12.5 hrs.), carrier suitability (24 hrs.), dedicated captive carriage (32.5 hrs.), and range missions (10.4 hrs.). Twenty-five catapult and arrested landings were conducted. Fleet representative personnel operated and maintained the JDAM.

The JDAM Program Office submitted a request to declare IOC in March 2001, which was granted in May 2001 by Naval Message R 171311Z MAY 01 ZYB PSN 939302I26. These dates coincided with the deployment of the USS Harry S. Truman, Aircraft Carrier Nuclear (CVN)-75, which included a load out of GBU-31(V)2/B.

(2) GBU-32(V)2/B & GBU-35(V)1/B. Laboratory, ground and flight testing have produced satisfactory progress toward meeting GBU-32(V)2/B (JDAM MK 83) and GBU-35(V)1/B (JDAM BLU-110) DT objectives. Because the GBU-32(V)2/B and GBU-35(V)1/B share common hardware and software components with the GBU-31(V)2/B (JDAM MK 84) and GBU-31(V)4/B (JDAM BLU-109), qualification testing was completed concurrently with the GBU-31(V)2/B and GBU-31(V)4/B qualification testing. Aircraft integration, captive carry, and free flight testing was initiated using the F-16C/D as a risk reduction aircraft. Risk reduction testing results demonstrated aircraft compatibility, free flight performance, reliability and maintainability similar to the 2000 lb. warhead variants. Full system integration on the F/A-18C/D aircraft is in progress with satisfactory results to date.

b. F/A-18E/F Integration. The F/A-18E/F is an objective JDAM fighter/attack aircraft. Investigation of the F/A-18E/F JDAM captive carry environment was satisfactorily completed with GBU-31(V)2/B and GBU-31(V)4/B Environmental GTV (EGTV) flights at NAWCAD, Patuxent River, MD.

c. F-14B/D Integration. The F-14B and the F-14D are objective JDAM fighter aircraft. Investigation of the F-14B/D JDAM captive carry environment was satisfactorily

completed with GBU-31(V)2/B EGTV flights at NAWCAD, Patuxent River, MD. Four STVs were released at NAWCAD to investigate weapon separation characteristics and generate a limited envelope release clearance. Two GTVs were captive carried and released from the F-14B. FOT&E of the GBU-31(V)2/B on the F-14 aircraft began in FY00. F-14A/B DT began 1st quarter FY00 and was completed 1st quarter FY01. F-14D DT began 1st quarter FY01 and was completed 3rd quarter FY01. F-14A/B OT began 1st quarter FY01 and was completed 3rd quarter FY01.

d. AV-8B Integration. The AV-8B is threshold aircraft for GBU-32(V)2/B and GBU-35(V)1/B integration. The AV-8B completed wind tunnel testing in June 1996. Integration testing was initiated in FY01 and was completed in FY03.

F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED. The JDAM system will complement existing accurate and precision guided munitions (Laser Guided Bombs), direct attack weapons (MK-80 series) and cluster munitions (MK-20/CBU-52/59). Because JDAM builds upon current inventory bombs, it does not outright replace any weapon system.

G. DESCRIPTION OF NEW DEVELOPMENT

1. Functional Description. JDAM provides precision guidance capability to existing munitions with the addition of Guidance Sets. The official nomenclatures for the USN/USMC Guidance Sets and their relationship to GBUs, warheads, fuzes, proximity sensors, and initiators are:

JDAM Variant	Guidance Set	Warhead	Fuze	Proximity Sensor[1]	Arm Switch/ Initiators
GBU-31(V)2/B	KMU-556A/B or KMU-556/B	MK 84	FMU-152/B or FMU-139A/B or FMU-139B/B	DSU-33B/B	MK 122 or FZU-48B/B
GBU-31(V)4/B	KMU-558A/B or KMU-558/B	BLU-109	FMU-152/B or FMU-143E/B	None	MK 122 or FZU-32B/B
GBU-32(V)2/B	KMU-559A/B	MK 83	FMU-152/B or FMU-139A/B or FMU-139B/B	DSU-33B/B	MK 122
GBU-35(V)1/B	KMU-559A/B	BLU-110	FMU-152/B or FMU-139A/B or FMU-139B/B	DSU-33B/B	MK 122

Note 1: When the DSU-33B/B is not used, a nose plug/support cup is used.

Other components such as initiator cables and initiator extenders are used as applicable. The JDAM variants are built-up by installing the Guidance Sets to MK 83, MK 84, BLU-109 or

BLU-110 bombs along with the required fuzing, sensors, initiators, and/or nose plugs/support cups. The Guidance Sets are functionally the same but are not interchangeable because the guidance software and physical interfaces are peculiar to each warhead type. Guidance Set physical differences correspond primarily to the different warhead interfaces.

JDAM is deployed from fighter, attack and bomber aircraft. It can be released at low to high altitudes and release maneuvers include dive, dive-toss, lateral toss, loft, or straight and level, within a release envelope that includes off-axis delivery options as well. JDAM uses a GPS-aided INS to guide to preplanned precision target location coordinates achieving planned terminal impact parameters such as impact angle and azimuth. JDAM automatically begins its initialization process during captive carry when the aircraft applies power. It performs a Built-In Test (BIT), and aligns its INS with that of the aircraft. Targeting data is automatically down loaded to JDAM. When the aircraft reaches the release point within the Launch Acceptable Region (LAR), JDAM can be released. The LAR is displayed to the aircrew while en route to the target. The aircraft onboard computers can handle JDAM release automatically or the aircrew can handle it manually. When released, JDAM begins its free flight operation. Free flight operations involve separation from the aircraft, fuze arming, GPS satellite acquisition, guidance optimization, terminal trajectory adjustment, and target impact. Weapon free flight is further divided into three phases: Separation Phase, Optimal Guidance Phase, and Impact Phase.

The Separation Phase begins with weapon release. The weapon is released with the fins locked to prevent any control actions that could jeopardize safe separation from the aircraft. The fins remain locked for one second after release. After the one second delay, the fins are unlocked, electrical power from the initiator is applied to the fuze and the autopilot provides fin commands to damp angular rates and control the flight attitude.

The Optimal Guidance Phase takes place from the completion of the Separation Phase, when full guidance authority is achieved, until initiation of the Impact phase, which is the last second before weapon impact. During this phase there are two functions that happen simultaneously. These functions consist of GPS satellite acquisition and optimal guidance computation. The satellite acquisition process begins three seconds after release so JDAM is not shadowed by the aircraft and to minimize the possibility of receiving multipath GPS signals. The first satellite is acquired in approximately one second after the search begins; after two more seconds the second satellite is acquired and the third satellite in about four more seconds. JDAM then continues to acquire additional satellites, make position measurement corrections and achieve navigation accuracy. The time to first fix for the first valid navigation update is achieved in a maximum of 27 seconds after release. Simultaneous to this activity, JDAM employs an optimal guidance algorithm that adaptively computes, in real time, the minimal control maneuvers required to go from the present position and velocity state to impacting the target at the desired flight path and approach angle. These computations are continuously made throughout this phase and the resulting commands are executed by JDAM's autopilot. The optimal guidance algorithm is used for both horizontal and vertical targets with level, dive, loft and toss release conditions. The guidance algorithm continually computes the optimal trajectory from the current position to the target, to achieve an impact vector at the planned impact point, with the planned impact angle and impact azimuth. If all planned impact conditions are not

achievable, the guidance law trades off impact velocity first, then impact angle/azimuth and finally impact point. By applying the algorithm in this manner, the weapon effectively optimizes the impact point. During the later portion of this phase, as JDAM nears its target, it will roll 180 degrees and pull down on the target to align its angle of attack with its velocity vector. For horizontal targets, this pull down results in a steep descent in order to maximize warhead penetration and to improve fuze and warhead reliability. For vertical targets, the weapon performs the same roll and pull down maneuver, but the resulting descent is not as steep. As previously indicated the, proper descent angle for both types of targets is continually computed by the guidance algorithm throughout JDAM's entire flight, until it enters the Impact Phase.

The Impact Phase is the last, one second of flight, during which, the JDAM flight attitude is actively controlled, to zero the total angle of attack. This is done to align the warhead longitudinal axis to the velocity vector to prevent warhead breakup. The navigation system estimates the time to impact and the angle of attack. At one second prior to impact the guidance commands are zeroed and an attitude command equal to the velocity vector orientation is sent to the autopilot. This results in zeroing JDAM's angle of attack before impact. The resulting descent and minimum angle of attack results in maximum impact velocity for effective penetration of hardened targets. In summary, the weapon's autonomous guidance system acquires GPS, which provides accurate position data to aid the INS and Mission Computer in computing the GPS optimum navigation solution to the target and guides the weapon to achieve the specified impact parameters. JDAM's current guidance system provides the capability to hit a target within 13 meters. Future enhancements will increase that accuracy to within 3 meters.

a. Guidance Set (KMU-55X). Guidance Sets consist of a tail assembly, aerosurfaces, umbilical cover, and for the KMU-558 only, also contain a hardback, lug sleeves, suspension lugs, FZU Extender and SHOLS lugs.

(1) Tail Assembly. Each tail assembly consist of a tail fairing, TAS, wire harness, Guidance Control Unit (GCU), GPS antenna, three moveable control fins, and one fixed control fin. The tail assembly has BIT capability which can be initiated both on and off the aircraft by both maintenance and aircrew personnel. The aircrew can perform BIT while the aircraft is in flight. BIT and reprogramming are accomplished using the AN/GYQ-79 Common Munitions Bit and Reprogramming Equipment (CMBRE).

(a) Tail Fairing. The tail fairing is the forward structural member of the tail assembly. It mates to the TAS at a faying surface using a radial screw/nut plate configuration. The tail fairing has a fuze access door to facilitate assembly/disassembly operations.

(b) Tail Actuator Subsystem. The TAS consists of the aft tail assembly structure, three electromechanical actuators to power the three movable control fins, a Lithium Thermal Battery, and the associated controlling electronics. The aft structure provides a mounting surface for the GPS Antenna and mounting surfaces for the control fins. The actuators contain either electrically released motor brakes (used in KMU-55X/B Guidance Sets) or a fin lock device (FLD) (used in KMU-55XA/B Guidance Sets**)** that unlocks the tail control fins in flight. On Guidance Sets with the KMU-55X/B designation, markings are applied to the TAS to

aid in determining proper fin positions. The TAS marking applies to electrically released, motor brakes only. When the aft end of the fins is within the boundaries of the alignment marks, the fins are properly positioned for use. On Guidance Sets with the KMU-55XA/B designation, control fins are secured with the FLD that uses retractable locking pins designed to eliminate fin movement during high speed, low altitude captive flight. TAS with the FLD is not subject to captive carry flight restrictions. The controlling electronics process digital commands into independent fin control movements, provide fin position feedback, battery initiation, brake unlock commands, and BIT status. TAS for the KMU-556 and KMU-558 are physically identical; however, they are not interchangeable due to differences in the guidance software contained within the GCU.

(c) Wire Harness. The Wire Harness consists of the MIL-STD 1760 umbilical connector, the FMU-152/B fuze connector, GCU connectors, and a shielded wiring harness. A protective Electro-Magnetic Interference (EMI) cover is provided on the umbilical connector. The FMU-152/B fuze connector is connected to a stowage receptacle on the inside surface of the tail structure, when not in use.

(d) Guidance Control Unit. The GCU consists of an integrated electronics assembly that includes the Mission Computer, INS, Guidance Positioning System Receiver Module (GPSRM), and other power conditioning electronics integrated into a common chassis. The INS uses a Ring Laser Gyro (RLG) inertial measurement unit (IMU). The GCU is form factored to fit into the tail assembly of both the 2,000 lb. and 1,000 lb. guidance kits.

(i) Mission Computer. Mission computer software implements autopilot, guidance and navigation functions. Guidance software uses an adaptive optimal guidance law. The guidance law develops guidance commands based on weapon position and velocity state vector updates, target location, and desired impact parameters. The guidance law continually computes the optimal trajectory from the current position to the target to achieve an impact vector at the planned impact point, with the planned impact angle and impact azimuth, at the highest possible velocity. Different OFP are utilized for the MK 84, BLU-109 and MK 83/BLU-110 variants to account for different mass properties and aerodynamic characteristics.

(ii) GPS Receiver Module. The GPSRM implements continuous P (Y) code tracking on L1 or L2 band for up to five satellites. A planned upgrade will incorporate a GPS receiver that can track all satellites in view. GPSRM software incorporates a fast acquisition mode that uses GPS position, velocity, time, and ephemeris data provided by the aircraft. Using this data, the GPS receiver can achieve full position and velocity acquisition within 27 seconds and full GPS navigation accuracy within 28 seconds after release.

(e) GPS Antenna. The GPS antenna is located on the aft end of the TAS. The antenna is connected to the GCU by a cable that runs along the exterior of the tail assembly and is protected by a cover.

(f) Control Fins. Four control fins are attached TAS. Three of the control fins are moveable. The fourth control fin is fixed.

(2) Aerosurfaces. Aerosurfaces are fixed, mid body strakes that are attached to the warhead using steel bands and T-bolts, and in the case of the KMU-558, require a hardback.

(a) KMU-556 Strakes. Aerosurfaces consist of three formed steel "strakes" that are strapped around the bomb body. The upper strake is positioned over the suspension lugs. Right and Left strakes attach to slots in the upper strake and are fastened around the bomb with three metal straps that are tensioned with T-Bolt adjusting nuts. The left and right strakes are fabricated in both stamped and riveted configurations that are interchangeable. The strakes provide aerodynamic lifting surfaces around the exterior of the bomb body to enhance weapon maneuverability and range.

(b) KMU-558 Strakes/Hardback. Aerosurfaces consist of right and left side formed steel "strakes" that attach to hooks on the hardback and strapped around the bomb body. The hardback is an aluminum casting that is positioned over a set of lug sleeves and attached with bolts. The strakes attach to hooks that are hung from the hardback and are fastened around the bomb with two metal straps (primary configuration) or three metal straps (alternate configuration). The straps are tensioned with T-Bolt adjusting nuts. The strakes provide aerodynamic lift, maneuverability and other needed flight characteristics. The hardback provides the necessary physical interface to the delivery aircraft.

(c) KMU-559 Strakes. Aerosurfaces consist of three formed steel "strakes" that are strapped around the bomb body. The upper strake is positioned over the suspension lugs. Right and left strakes attach to buckles on the upper strake and are fastened around the bomb with two metal straps that are tensioned with T-Bolt adjusting nuts.

(3) Hardback. The hardback is used in the KMU-558 only. It provides the necessary physical interface to the delivery aircraft. It is an aluminum casting that is positioned over a set of lug sleeves and attached with bolts. Because it adds a significant amount of additional space between the bomb body and the interface to the delivery aircraft, additional lug sleeves and suspension lugs are provided. Additionally, a FZU Extender is provided for use when the FMU-143E/B and FZU-32B/B configuration is built. The FZU extender compensates for the height of the hardback and permits the FZU-32B/B initiator to physically interface with the bomb rack.

(4) Umbilical Cover. The umbilical cover is a formed steel part that attaches to the tail assembly by inserting the tab on the aft end of the cover into the harness exit hole. The forward end of the umbilical cover is positioned and captured by a slot in the upper strake. The umbilical cover positions the umbilical connector to mate correctly with the delivery aircraft MIL-STD 1760 interface and retains the umbilical connector during separation. The cover also provides protection for the wire harness during weapon handling operations. Different umbilical covers are provided in the KMU-556, KMU-558, and KMU-559 Guidance Sets to accommodate the physical differences in their respective warheads.

(5) SHOLS Lugs. SHOLS lugs are used in the KMU-558 only. The SHOLS lugs are high strength steel parts that are installed under the hardback assembly and

include the interfacing features to attach the SHOLS lifting trolleys with a single locking pin. SHOLS lugs provide the pin attach points for rapid attachment of the lift trolley assemblies to the weapon to facilitate weapon loading with the SHOLS loading equipment.

b. Fuzes. JDAM is compatible with the existing FMU-139 and FMU-143 fuzes. It is also compatible with the FMU-152/B JPF.

c. Proximity Sensors. JDAM tail assemblies are compatible with the DSU-33B/B proximity sensor. The DSU-33B/B provides general-purpose warheads with an air burst capability. The DSU-33B/B can be used in GBU-31(V)2/B, GBU-32(V)2/B, and GBU-35(V)1/B configurations to provide an accurate air burst capability against appropriate targets. The DSU-33B/B is not compatible with the GBU-31(V)4/B. When the DSU-33B/B is not used, a nose plug/support cup is used.

d. Arming Switch. A MK 122 Mod 0 arming switch can be used in any MK 80 series configuration. It is used in lieu of an initiator and its corresponding cable.

e. Initiators. When an arming switch is not used, either the FZU-32B/B, the FZU61/B or the FZU-48/B initiator and their corresponding cables can be used in the GBU-31(V)2/B or GBU-31(V)4/B configurations.

f. Nose Plug/Support Cup. Whenever the DSU-33B/B is not used, a nose plug/support cup is used, either the OGIVE or the MXU-735.

2. Physical Description. The JDAM System consists of the GBU-31(V)2/B, GBU-31(V)4/B, GBU-32(V)2/B, GBU-35(V)1/B, support equipment, test equipment and training equipment.

a. GBU Variants. JDAM GBU variants are illustrated in Figure I-1 and their leading particulars along with those of the CNU-589/E container are listed in Table I-1.

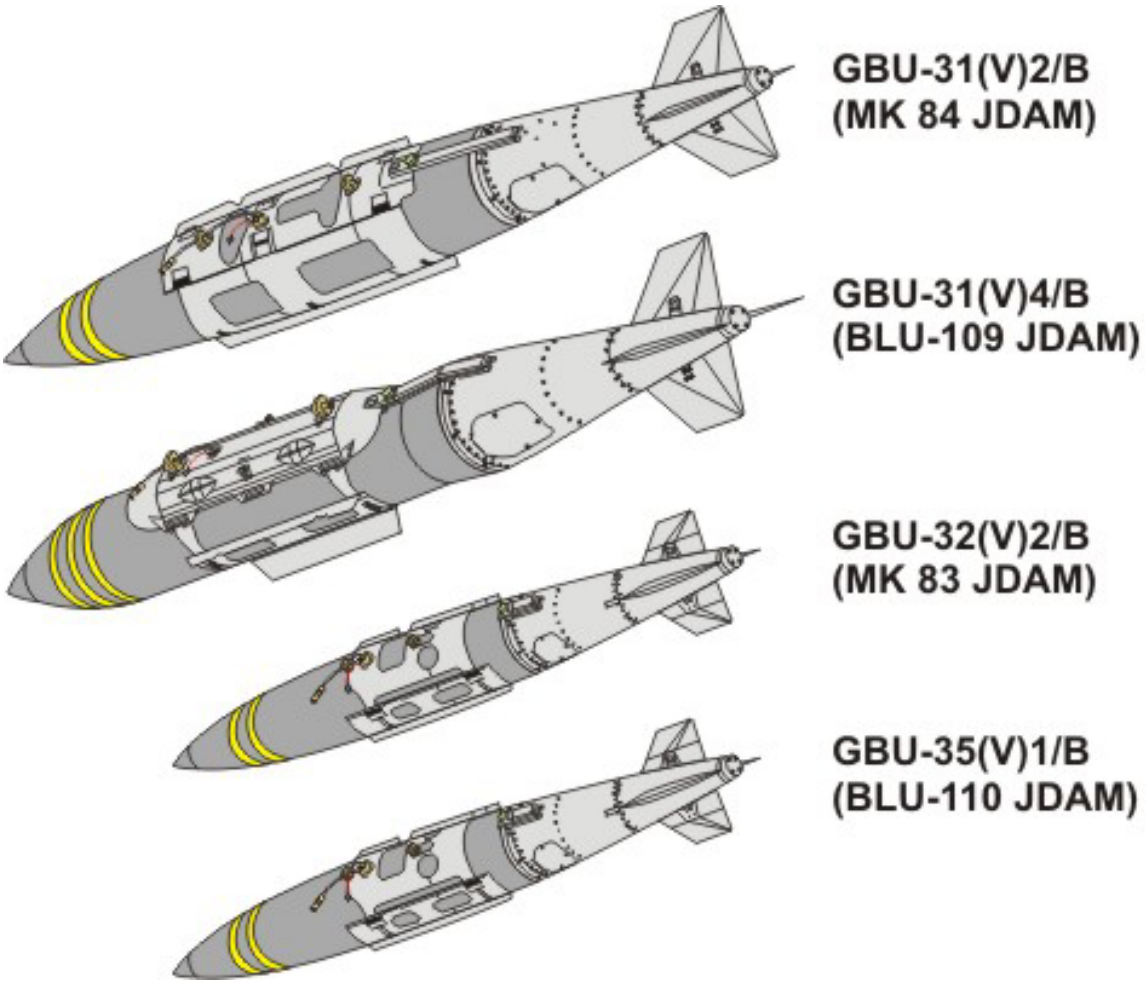

Figure I- 1. Joint Direct Attack Munitions GBU Variants

Table I- 1. Joint Direct Attack Munitions GBU Variants Leading Particulars

GBU Designation	GBU-31(V)2/B	GBU-31(V)4/B	GBU-32(V)2/B GBU-35(V)1/B
Warhead	2,000 lb. MK-84	2,000 lb. BLU-109	1,000 lb. MK-83/BLU-110
GBU Length	152.46”	148.32”	119.31”
Tail Assembly Length	51.04”	51.04”	42.93”
Tail Assembly Diameter	25.32”	25.32”	19.62”
Aerosurface Length (Strakes)	48”	35.93”	40.37”
Lug Suspension	30”	30”	14”
Weights: -Standard Warhead -Thermal Coated -Guidance Set Total:	 1,919 lbs. 1,939 lbs. 120 lbs. 2,039 – 2,059 lbs.	 1,942 lbs. 1,962 lbs. 176 lbs. 2,118 – 2,138 lbs.	 921 lbs. 936 lbs. 93 lbs. 1,014 – 1,029 lbs.
CNU-589/E (packed) CNU-589/E (empty)	396 lbs. 156 lbs.	508 lbs. 156 lbs..	342 lbs. 156 lbs.
CNU-589/E Dimensions	L 65.4” W 42” H 32.3”	L 65.4” W 42” H 32.3”	L 65.4” W 42” H 32.3”

b. Training Equipment. Training equipment requirements for JDAM include a Load Drill Trainer (LDT), a Practical Explosive Ordnance Disposal (EOD) System Trainer (PEST), and a JPF Inert Load Trainer (ILT).

(1) Load Drill Trainer. LDTs are inert and have the same physical appearance, size, weight, and center of gravity as the actual weapon. Similar to tactical JDAM variants, the JDAM LDTs are issued as Guidance Sets that are installed on inert MK 84, BLU-109, MK 83, and BLU-110 training bombs. They are used at loading schools, such as the Strike Fighter Weapons School Atlantic (SFWSL) and Strike Fighter Weapons School Pacific (SFWSP), to train organizational level personnel aircraft loading procedures. The LDT Guidance Sets are also provided to Naval Air Maintenance Training Group (NAMTRAGRU) for the purpose of training intermediate level maintenance personnel in JDAM build-up, maintenance, and BIT/Reprogramming procedures. The official nomenclature for the training equipment are: Load Trainer GBU-31(V)2(D-2)/B, Load Trainer GBU-31(V)4(D-2)/B, Load Trainer GBU-32(V)2(D-2)/B, Load Trainer KMU-556(D-2)/B, Load Trainer KMU-558(D-2)/B, and Load Trainer KMU-559(D-2)/B. The Navy is developing a “dual purpose” Load Trainer Kit, KMU-XXX, that will incorporate components from both the KMU-556(D-2)/B and the KMU-558(D-2)/B. This consolidation will allow training for both the MK 84 and BLU-109 JDAM variants while conserving valuable stowage space aboard fleet Aircraft Carriers. The

KMU-XXX Kit will consist of KMU-556(D-2)/B Tail Assembly, Aero-surfaces, KMU-558(D-2)/B Hardback, Aero-surfaces, and attaching hardware.

(2) Practical Explosive Ordnance Disposal System Trainer. The PEST is an inert three dimensional, full-scale model that has the same weight, center of gravity, and external configurations and markings as the actual weapon. The PEST has a complete simulated fuzing and firing train to allow for Render Safe Procedure (RSP) training of EOD personnel.

(3) Joint Programmable Fuze Inert Load Trainer. The JPF Inert Load Trainer (ILT) is the only new inert fuze to be developed. It has the same physical appearance, functional characteristics, size, and weight as the tactical JPF and will be certified inert and carry an inert Naval Ammunition Logistic Code (NALC).

3. New Development Introduction. JDAM is being introduced to fleet activities through a phase-in concept. Early operational fielding occurred during Operation Southern Watch, and as of 15 September 2000, 51 GBU-31(V)2/B have been employed from carrier based F/A-18C/D aircraft with a mission success rate of greater than 90%.. The JDAM Program Office submitted a request to declare IOC for the GBU-31(V)2/B in March 2001 and is awaiting the decision. This date coincided with the deployment of the USS Truman, CVN-75, which included a load out of GBU-31(V)2/B. Other JDAM variants will be introduced as DT/OT and LRIP demonstrate that the designs are ready for operational use.

4. Significant Interfaces. JDAM interfaces with a variety of aircraft, suspension equipment, standard aircraft interfaces, common support equipment, and test equipment. On the subsystem level, it also interfaces with existing warheads, fuzes, proximity sensors, arming switches, and initiators.

a. Aircraft. JDAM variants are currently planned to interface with the following USN/USMC aircraft:

AIRCRAFT	GBU-31(V)2/B	GBU-31(V)4/B	GBU-32(V)2/B	GBU-35(V)1/B
F/A-18C/D	X	X	X	X
F/A-18E/F	X	X		
F-14B	X	1	1	
F-14D	X	1	1	
AV-8B			X	X

Note 1: A second configuration is being considered for the F-14B/D.

Other aircraft being considered for later integration are the S-3 and the P-3. JDAM requires the MIL-STD-1553 data bus and MIL-STD-1760 digital interface.

b. Mission Planning Systems. JDAM is compatible with the Navy TAMPS and is planned to be compatible with the Joint Mission Planning System (JMPS).

c. Container, CNU-589/E. The CNU-589/E shipping/storage container consists of a reusable fiberglass reinforced plastic outer shell with internal foam dunnage. All KMU-55X Guidance Sets use the same CNU-589/E container, which holds two Guidance Sets. The KMU-559/B requires the use of a foam spacer to accommodate the shorter tail assembly. Each Guidance Set tail assembly is individually packaged in a polystyrene foam cushion and enclosed in a heat-sealable foil laminate vapor barrier bag. Thirty-two units of desiccant are placed inside the vapor barrier bag prior to sealing to maintain the environment required to achieve a 20 year shelf life. The tail assembly cushions are placed on polyethylene foam pads attached to an internal shelf for shock isolation. The aerosurfaces are packed in the container base using foam sheets to prevent scratching and secured with factory installed friction welded or buckled polyester banding. Handholds are molded into the lid flange on each end to facilitate two person lift and removal of the container lid. The container lid is secured using factory installed friction welded polyester banding. Four hoisting and tie-down attach fittings are located on the container base.

d. AN/GYQ-79, Common Munitions Bit Reprogramable Equipment. The AN/GYQ-79 CMBRE interfaces with all JDAM variants including the LDT configurations. No additional cables beyond those supplied with CMBRE are required for this compatibility. This compatibility extends to JDAM Tail Assemblies as well, where BIT/reprogramming can be performed prior to GBU build-up. AN/GYQ-79 CMBRE were procured by PMA-201 through Alliant Defense Electronics Systems, Inc., Clearwater Florida, and provided to aircraft carriers and intermediate level maintenance training schools.

(1). Mobile Power Conditioning Unit. The AN/GYQ-79 CMBRE requires a 3-phase 400 Hz power source. For shore activities without a 3-phase 400 Hz power source and ships without Ship Alteration (SHIPALT) CV 8734 or CVN 8735, a Mobile Power Conditioning Unit (MPCU) was developed to satisfy the CMBRE power source requirement. The MPCU is an ASX-315 power-conditioning unit mounted on a mobile steel frame cart. MPCUs were procured by PMA-201 and provided to certain aircraft carriers and intermediate level maintenance training schools.

(2) Joint Direct Attack Munitions Application Program. CMBRE is delivered from the manufacturer with Common Executive Software on a write-protected Personal Computer Memory Card International Association (PCMCIA) memory card mounted internally in the computer. The Common Executive Software provides Power Up, Self-Test, Fault Isolation (for the CMBRE), MIL-STD-1553 drivers, drivers for control and monitoring of Test Adapter Unit (TAU) functions, and a Menu. The Boeing Company developed JDAM-specific software called the JDAM Munitions Application Program (MAP) to interface with CMBRE to control all MIL-STD-1553 communications with the Unit under test (UUT), initiate BIT, and reprogram the UUT with JDAM OFP software. The JDAM MAP software is provided on a removable 40 MB

(minimum) PCMCIA memory card. A second PCMCIA memory card is used to download and store logistics data as part of the BIT/reprogramming operation. Because OFP updates will be automatic during the BIT/reprogramming performed in the JDAM assembly process, OFP update TDs will not be required to be complied with against stored JDAM assets.

5. New Features, Configurations, or Material. JDAM introduced four new GBU configurations for the USN/USMC: GBU-31(V)2/B, GBU-31(V)4/B, GBU-32(V)2/B, and GBU-35(V)1/B. New GBU features that we introduced on these JDAM variants include autonomous GPS-aided INS guidance, preflight target assignment, inflight captive carry retargeting using both manual entry and onboard sensor retargeting, and munitions BIT/reprogramming.

H. CONCEPTS

1. Operational Concept. JDAM is used worldwide against medium to high valued fixed targets in adverse weather conditions. JDAM is deployed from fighter, attack and bomber aircraft. It can be released at low to high altitudes and release maneuvers include dive, dive-toss, lateral toss, loft, or straight and level, within a release envelope that includes off-axis delivery options as well. An off-axis delivery is where the weapon glides toward its intended target on a flight path that curves away from the flight path of the releasing aircraft. This allows JDAM to reach a target without requiring the aircraft to overfly that target directly. The capability for off-axis attack provides increased aircraft and aircrew survivability. JDAM enables both single-pass multiple-target engagements with individual weapons, and single-pass single-target engagements with multiple weapons. JDAM also provides flexible targeting and retargeting capability by accepting target coordinates that are mission planned and loaded before takeoff or by determining target coordinates and entering the data in-flight, prior to weapon release. Mission plans are loaded prior to takeoff and include release envelope, target coordinates, and weapon terminal parameters. JDAM uses a GPS-aided INS to guide the weapon to preplanned precision target location coordinates achieving planned terminal impact parameters such as impact angle and azimuth. JDAM automatically begins its initialization process during captive carry when the aircraft applies power. It performs BIT, and aligns its INS with that of the aircraft. Targeting data is automatically down loaded to JDAM. When the aircraft reaches the release point within the LAR, JDAM can be released. The LAR depicts the area from which JDAM can be released and reach its target with the planned impact parameters. It is displayed to the aircrew while en route to the target. The aircraft onboard computers can handle JDAM release automatically or the aircrew can handle it manually. When released, JDAM begins its free flight operation. JDAM free flight operations involve separation from the aircraft, fuze arming, GPS satellite acquisition, guidance optimization, terminal trajectory adjustment, and target impact. JDAM free flight is further divided into three phases: Separation Phase, Optimal Guidance Phase, and Impact Phase.

A joint Navy/Air Force Operational Concept, currently classified SECRET, identifies the specific operational concept. The Operational Concept serves as an umbrella document for future Concepts of Operation development. The expected operational service life (out-of-container) of the system is 5 years and the expected warranty life (in container) is 20 years.

2. Maintenance Concept. The Navy uses a three level maintenance concept, which includes organizational, intermediate), and depot. Depot level maintenance is provided by the contractor and includes a 20-year extended maintenance/repair warranty.

a. Organizational. Navy organizational level maintenance is performed on the flight deck, flight line, and Marine Corps forward deployed sites. Organizational level maintenance consists of aircraft interface checkout, uploading, visual inspection, arming, dearming, and downloading. If JDAM fails aircraft BIT after uploading, it is returned to the Weapons Department for BIT and/or reprogramming.

b. Intermediate. Navy intermediate level maintenance is performed within the Weapons Department facilities (afloat and ashore) and consist of receipt, storage, issue, unpacking/packing, visual inspections, assembly, removal and replacement of ancillary equipment (e.g. bomb, cables, fuzes, etc.), minor corrosion control, touch-up painting, restoration of markings, transportation, BIT and software reprogramming via CMBRE, and if required, shipment to the Naval Weapons Station (NWS) for return to the Depot for repair.

c. Depot. No organic depot level maintenance is planned for JDAM. The contractor has provided an extended 20-year repair/replacement warranty. The warranty covers repair or replacement of any Guidance Set failures (tail assembly, associated hardware, and software) and container failures from the DD 250 date. This warranty includes parts, labor, failure analysis, disposal of failed kits, warranty tracking, and round trip transportation costs from the point of origination in the United States. The government will exercise due diligence in testing, storing, and maintaining the Guidance Set. Also, the government will not track captive carry flight hours or aircraft catapults and traps. Exclusions to the warranty include upgrades, induced failures, loss or damage from natural disaster, accident, or war. Warranty disputes will be resolved through an alternative dispute resolution process.

d. Interim Maintenance. All logistics elements are in place. Interim maintenance support is not required.

e. Life Cycle Maintenance Plan. The Boeing Company is responsible for component level repair of the JDAM Guidance Sets through the 20-year warranty program.

3. Manning Concept. JDAM does not impact existing manpower requirements at Government organizational, intermediate, or depot level activities. Seat factor, crew ratio, and total aircraft per squadron drive the pilot, Weapon Sensor Operator (WSO), and Radar Intercept Operator (RIO) manpower requirements. The number of weapon pylons/stations per aircraft and total per squadron drive the load crew manpower requirements for USN and USMC operational squadrons and Fleet Replacement Squadrons (FRS). Enlisted manning for USN and USMC Intermediate maintenance activities Aircraft Carrier (CV), CVN, Naval Air Station (NAS), Marine Corps Air Station (MCAS), and Marine Aviation Logistics Squadron (MALS) is based on the total assigned ordnance workload, and not on specific JDAM requirements. Skills required to support the JDAM are within the capability of existing Navy Enlisted Classification (NEC) and Military Occupational Specialties (MOS). Refer to Part II for existing USN and

USMC Intermediate maintenance manpower requirements. Manning requirements for the JDAM are operator, maintainer, and instructor.

a. Operator. Navy and Marine Corps aircrew personnel deploy JDAM from fixed-wing aircraft. Manning requirements for specific aircraft are determined from OPNAV directed aircraft crew ratios and seat factors. JDAM does not require a dedicated operator. Crew ratios and seat factors will not change. Additional aircrew is not required.

b. Maintainer. Navy and Marine Corps personnel will perform organizational and intermediate level maintenance on JDAM. Manning requirements for organizational and intermediate level maintenance activities are based on the total workload of the work centers within the activities. JDAM minimizes organizational and intermediate level maintenance actions. Because JDAM will be used in lieu of other weapons and fuzes, it will not affect existing manning levels.

c. Instructor. JDAM has been integrated into existing USN/USMC schools and existing curricula. New training tracks and/or courses were not required, and existing Instructor manning levels were not impacted by the introduction of JDAM.

4. Training Concept. The JDAM training concept is based upon providing an organic training capability to appropriate USN and USMC training activities. The JDAM contractor determined, via the Instructional System Design (ISD) process, training and training support requirements for the JDAM Program. By providing source data, training aids, training equipment, and initial training services to USN and USMC schoolhouses and operational activities, the organic capability will be achieved. A joint Navy, Air Force, and Contractor Integrated Product Team (IPT), was established to define requirements and to ensure the development and implementation of training. The IPT was established with Navy, Marine Corp and Air Force representation from testing, training, and operational activities. The contractor provided DT training to TECHEVAL personnel. The JDAM Training IPT provided initial training for OPEVAL personnel, NAMTRAGRU and Strike Fighter Weapon Schools, Atlantic/Pacific (SFWSL/SFWSP) instructors. Training activities updated curricula to include JDAM and begin conduct of follow-on training.

a. Initial Training. The JDAM Training IPT began initial training in September 1997. Aircraft carriers deploying with JDAM during Early Operational Fielding required classroom and hands-on training for their Weapons Department personnel (G-3 Division). F/A-18C/D squadrons deploying to the aircraft carriers received JDAM familiarization at SFWSL/SFWSP during pre-deployment work-ups. NAMTRAGRU Maintenance Training Units (MTU) received initial training in advance of training equipment deliveries, and have been provided refresher training following delivery of their LDT, CMBRE, and MPCU.

b. Follow-on Training. USN/USMC instructors at formal training activities provide follow-on training. This includes formal training for fleet operators, maintenance personnel, and EOD technicians. The following paragraphs list the follow-on training tracks or courses that were affected by the introduction of JDAM.

(1) Operator Training. Pilots, RIOs, and WSOs are trained at the appropriate FRS for specific aircraft operation and weapons. Pilot, RIO and WSO skills in tactics and ordnance delivery are further enhanced at SFWS, Strike Weapons and Tactics School Atlantic (SWATSLANT), Naval Strike Air Warfare Center (NSAWC), Medium Attack Weapon & Tactics School (MAWTS)-1 and through on-board proficiency training.

(a) Training Devices. Currently, the JDAM program does not use a captive carry training configuration for aircrew training. Tactical JDAM assets are required for live-fire exercises, which are part of the annual Non-Combat Expenditure Allowance (NCEA).

(b) Courses. The following table lists the applicable operator training courses. JDAM lectures/briefs have been provided to Tactics Instructors at NSAWC (Topgun), SFWSL/SFWSP, and MAWTS-1. The JDAM source material was incorporated in these courses with minimal impact. The addition of JDAM material did not change student throughput or chargeable student billets, and, therefore, these courses do not appear in Parts II and III. See the AV-8, F-14, and F/A-18 NTSPs for course details. Refer to element I.M for information on these related NTSPs.

Table I-2. F/A-18C/D Operator Courses

COURSE NUMBER	COURSE TITLE	RFT DATE
D/E-2A-0601	F/A-18 Fleet Replacement Pilot Category 1	On Line
D/E-2A-0602	F/A-18 Fleet Replacement Pilot Category 2A	On Line
D/E-2A-0603	F/A-18 Fleet Replacement Pilot Category 2H	On Line
D/E-2A-0605	F/A-18 Fleet Replacement Pilot Category 2F	On Line
D/E-2A-0604	F/A-18 Fleet Replacement Pilot Category 3	On Line
D/E-2A-0606	F/A-18 Fleet Replacement Pilot Category 4	On Line
M13P4B3	F/A-18 Fleet Replacement Pilot Basic and Transition	On Line
M13P3V3	F/A-18 Fleet Replacement Pilot Refresher	On Line
M13P3W3	F/A-18 Fleet Replacement Pilot Modified Refresher	On Line
M13P4C3	F/A-18 WSO Basic and Transition	On Line
M13P3R3	F/A-18 WSO Refresher	On Line
M13P3S3	F/A-18 WSO Modified Refresher	On Line

Table I-3. F-14 Operator Courses

COURSE NUMBER	COURSE TITLE	RFT DATE
D-2A-1601	F-14 Fleet Replacement Pilot Category 1	On Line
D-2A-1602	F-14 Fleet Replacement Pilot Category 2	On Line
D-2A-1603	F-14 Fleet Replacement Pilot Category 3	On Line
D-2A-1604	F-14 Fleet Replacement Pilot Category 4	On Line
D-2A-1605	F-14 Fleet Replacement Pilot Category 5	On Line
D-2D-1601	F-14 Naval Flight Officer (NFO) Category 1	On Line
D-2D-1602	F-14 Naval Flight Officer (NFO) Category 2	On Line
D-2D-1603	F-14 Naval Flight Officer (NFO) Category 3	On Line
D-2D-1604	F-14 Naval Flight Officer (NFO) Category 4	On Line
D-2D-1605	F-14 Naval Flight Officer (NFO) Category 5	On Line

Table I-4. AV-8B Operator Courses

COURSE NUMBER	COURSE TITLE	RFT DATE
M04P4H4	AV-8B Fleet Replacement Pilot Basic and Transition	On Line
M04P4Q4	AV-8B Fleet Replacement Pilot Refresher	On Line
M04P4R4	AV-8B Fleet Replacement Pilot Modified Refresher	On Line

(2) Initial Skills - Maintenance. The Aviation Ordnanceman (AO) "A1" School at NAS Pensacola, Florida provides JDAM initial skills training for the AO rating.

(a) Training Devices

- **Joint Direct Attack Munitions Load Drill Trainer.** The JDAM LDT is physically representative of the JDAM. It is a Training Device that facilitates instruction and familiarization for organizational and intermediate level maintenance personnel in JDAM assembly, disassembly, loading, transportation, and stowage procedures and techniques. All components are training items (completely inert). The LDT is used for training purposes and is not certified for flight. The JDAM program will provide Training Guidance Sets KMU-556(D-2)/B, KMU-558(D-2)/B, and KMU-559(D-2)/B as LRIP for each of these items is approved. For detailed information on LDT description refer to element I.G.2.b.(1). For detailed information on LDT requirements, refer to element IV.A.2.

- **Joint Programmable Fuze Inert Load Trainer.** The JPF ILT facilitates familiarization and procedural training for the JPF. The JPF ILT is certified inert. For detailed information on JPF ILT description refer to element I.G.2.b.(3). For detailed information on JPF ILT requirements, refer to element IV.A.2.

(b) Technical Training Equipment

- **CNU-589/E.** Technical Training Equipment (TTE) required is the CNU-589/E Container. The JDAM container is required to teach AO personnel packing/unpacking procedures and container maintenance. For detailed information on the CNU-589/E description refer to element I.G.4.c. For detailed information on CNU-589/E requirements, refer to element IV.A.1.

(c) Courses. The addition of JDAM did not affect the training course length at the AO A1 School, and therefore there will be no changes in student throughput or chargeable student billets. JDAM was incorporated into these courses in October 2001. These courses are listed for reference only and will not appear in Parts II and III of this document.

Table I-5. Initial Skills - Maintenance Courses

COURSE NUMBER	COURSE TITLE	RFT DATE FOR JDAM
C-646-2011	Aviation Ordnanceman Class A1 Common Core	Oct 01
C-646-2012	Aviation Ordnanceman Class A1 Navy Difference Training	Oct 01

(3) Organizational-Level Maintenance. Organizational level maintenance personnel are trained at the appropriate aircraft platform school. SFWSL/SFWSP provides weapons loading and launcher release and control checks training for F/A-18. NAMTRAGRU provides weapons loading and launcher release and control checks for F-14. VMAT-203 provides weapons loading and launcher release and control checks for AV-8. Weapon loading skills for F-14 are further enhanced through SWATSLANT on-board proficiency training.

(a) Training Devices

- **Joint Direct Attack Munitions Load Drill Trainer.**

The JDAM LDT is used for Weapons inspection, Loading/Unloading, Arm and De-Arm procedures. The JDAM program will provide Training Guidance Sets KMU-556(D-2)/B, KMU-558(D-2)/B, and KMU-559(D-2)/B as LRIP for each of these items is approved. For detailed information on LDT description refer to element I.G.2.b.(1). For detailed information on LDT requirements, refer to element IV.A.2.

- **Joint Programmable Fuze Inert Load Trainer.** The JPF ILT facilitates familiarization and procedural training for the JPF. The JPF ILT is certified inert. For detailed information on JPF ILT description refer to element I.G.2.b.(3). For detailed information on JPF ILT requirements, refer to element IV.A.2.

(b) Courses. JDAM is taught in the following organizational level maintenance training courses. The incorporation of JDAM did not affect the maintenance, release and control checks, or conventional weapons loading at organizational level maintenance activities. Associated training course content and course lengths were not affected, and therefore there were no changes in student throughput or chargeable student billets. These courses are listed for reference only and do not appear in Parts II and III of this document. See AV-8, F-14, and F/A-18 NTSPs for course details. Refer to element I.M for information on these related NTSPs. Organizational level maintenance courses are listed in the following table.

TABLE I-6. Organizational Level Maintenance Courses

COURSE NUMBER	COURSE TITLE	RFT DATE FOR JDAM
C-646-3893	AV-8B Conventional Weapons Loading	On Line
C-646-9962	F-14 Armament Systems Organizational Maintenance (Initial)	In Revision
D/E-646-0640	F/A-18 Conventional Weapons Loading	On Line
D/E-646-0647	F/A-18 Conventional Release Systems Test	On Line

(4) Intermediate-Level Maintenance. Intermediate-level maintenance training is available for USN and USMC AOs through NAMTRAGRU.

(a) Training Devices

- **Joint Direct Attack Munitions Load Drill Trainer.** The JDAM LDT is used to train intermediate level maintenance personnel in Receiving Inspection, Storage and Handling, Packaging / Unpacking, Cleaning, Paint Touch-Up, Replacement of Specified Components, and BIT/Re-Programming procedures. The JDAM program will provide Training Guidance Sets KMU-556(D-2)/B, KMU-558(D-2)/B, and KMU-559(D-2)/B as LRIP for each of these items is approved. For detailed information on LDT description refer to element I.G.2.b.(1). For detailed information on LDT requirements, refer to element IV.A.2.

- **Joint Programmable Fuze Inert Load Trainer.** The JPF ILT facilitates familiarization and procedural training for the JPF. The JPF ILT is certified inert. For detailed information on JPF ILT description refer to element I.G.2.b.(3). For detailed information on JPF ILT requirements, refer to element IV.A.2.

(b) Technical Training Equipment

- **CNU-589/E Container.** The JDAM container is required to teach and practice unpacking/packing evolutions, as well as, container maintenance. For detailed information on the CNU-589/E description refer to element I.G.4.c. For detailed information on CNU-589/E requirements, refer to element IV.A.1.

- **Common Munitions Bit Reprogramable Equipment (AN/GYQ-79).** A properly configured CMBRE is required to teach and practice BIT/Reprogramming procedures to intermediate level personnel. For detailed information on the CMBRE description refer to element I.G.4.d. For detailed information on CMBRE requirements, refer to element IV.A.1.

- **Mobile Power Conditioning Unit.** The MPCU converts 60 Hz, single phase power (Standard wall outlet) into the 400 Hz, 3 phase power that is required to operate CMBRE. The MPCU is required where 400 Hz, 3 phase power is not available. For detailed information on the MPCU description refer to element I.G.4.d.(1). For detailed information on MPCU requirements, refer to element IV.A.1.

- **Joint Direct Attack Munitions, Munitions Application Program.** The JDAM MAP software resides on a PCMCIA card and is required to operate CMBRE with JDAM. A second PCMCIA card is required to download logistics files from JDAM. For detailed information on the JDAM MAP description refer to element I.G.4.d.(2). For detailed information on JDAM MAP requirements, refer to element IV.A.1.

(c) Courses. The incorporation of JDAM did not affect the intermediate level maintenance training course length. JDAM is taught in the following intermediate level maintenance training courses.

Table I-7. Intermediate-Level Maintenance Courses

COURSE NUMBER	COURSE TITLE	RFT DATE FOR JDAM
C-122-3113	Precision Guided Weapons Intermediate Maintenance	On-Line
C-646-3105	Aviation Ordnance Intermediate Maintenance Technician	On-Line
C-646-4108	Weapons Department General Aviation Ordnance Supervisor	In Revision
C-646-4109	Weapons Department General Aviation Ordnance	On-Line

Detailed information for each of the courses listed in Table I-7 follows.

Title ..... Precision Guided Weapons

CIN ..... C-122-3113 (part of D/E-646-7007)

Model Manager. MTU 4035, NAMTRAU, NAS Whidbey Island, Wa.

Description..... This course provides Introduction to LGB/PAVEWAY/GBU Series weapons, Paveway Series Weapons Assembly, Inspection and Disassembly. Also included:

- Basic theory
- Safety precautions
- Technical publications
- Weapons reporting procedures

Upon completion of this course the student will have acquired sufficient knowledge of Paveway Series Guided Bomb Units/Laser Guided Bombs to correctly identify safety policies and procedures, components used for proper configuration, shipping/storage containers and support equipment needed to perform, as an Ordnance Team Member, component, unpacking, inspection, preparation and maintenance procedures to assemble and disassemble guided weapons in accordance with applicable Airborne Weapons Assembly Manual, while working in Bomb Assembly areas afloat and ashore.

Locations ..... MTU 4030, NAMTRAGRU DET, Naval Station (NS) Mayport
MTU 4032, NAMTRAU, NAS Norfolk
MTU 4033, NAMTRAU, NAS North Island
MTU 4035, NAMTRAU, NAS Whidbey Island

Length..... 5 days

RFT date ..... Currently available

Skill identifier... AO 6801

TD/TTE ..... KMU-556(D-2)/B, KMU-558(D-2)/B, KMU-559(D-2)/B, JPF ILT, CNU-589/E, AN/GYQ-79, MPCU, JDAM MAP

Prerequisite ..... C-646-2011A Aviation Ordnanceman Common Core Class A1

Title ..... Aviation Ordnance Intermediate Maintenance Technician

CIN ..... C-646-3105 (part of M-646-7026)

Model Manager. MTU 4034 MCAS Cherry Point, North Carolina

Description..... This course provides training to the USMC ordnanceman, including:

- Basic theory
- Safety precautions
- Technical publications
- Missile/launcher reporting procedures

Upon completion, the student will have sufficient knowledge/theory to be able to work on ordnance/armament in the MALS environment.

Locations ..... MTU-4034, NAMTRAU, MCAS Cherry Point, North Carolina

Length..... 81 days

RFT date ..... Currently available

Skill identifier... MOS 6541

TD..... KMU-556(D-2)/B, KMU-558(D-2)/B, KMU-559(D-2)/B, JPF ILT, CNU-589/E, AN/GYQ-79, MPCU, JDAM MAP

Prerequisite ..... C-646-2011A Aviation Ordnanceman Common Core Class A1

Title ..... Air Launched Weapons Ordnance Supervisor Course

CIN ..... C-646-4108 (part of D/E-646-7007)

Model Manager.. MTU 4032 NAMTRAU Norfolk

Description..... This course provides training to the USN ordnanceman, including:

- Introduction to Weapons Department Administration
- Introduction to IRRS, Magazines and Armament/Weapons
- Support Equipment
- Air Launched Weapons Configurations and Equipment
- Introduction to Rockets, Cluster Bombs, Mines and Sound
- Underwater Signals
- Introduction to Pyrotechnics, Linkless Ammunition Loading
- System (LALS) and Missiles

Upon completion of this course, officers and senior enlisted personnel will have sufficient knowledge of NAS, CV/CVN and Amphibious Aviation Ordnance administration and the Improved Rearming Rate System (IRRS), including all conventional munitions, associated equipment, magazines, handling procedures and related safety precautions to perform as supervisors on a NAS, CV/CVN or Amphibious Weapons Department.

Locations ..... MTU 4030, NAMTRAGRU DET, NS Mayport
MTU 4032, NAMTRAU, NAS Norfolk
MTU 4033, NAMTRAU, NAS North Island
MTU 4035, NAMTRAU, NAS Whidbey Island

Length..... 17 Days

RFT date ..... In revision

Skill identifier... 6801

TD/TTE ..... KMU-556(D-2)/B, KMU-558(D-2)/B, KMU-559(D-2)/B, JPF ILT, CNU-589/E, AN/GYQ-79, MPCU, JDAM MAP

Prerequisite ..... C-646-2011A Aviation Ordnanceman Common Core Class A1 OR EQUIVALENT FLEET EXPERIENCE

Title ..... Weapons Department General Aviation Ordnance

CIN ..... C-646-4109 (stand-alone course)

Model Manager. MTU 4033, NAMTRAU NAS North Island

Description..... This course provides training to the first tour Aviation Ordnanceman, Gunner's Mates and Torpedoman's Mates, including:

- Basic theory
- Safety precautions
- Technical publications
- Missile reporting procedures
- Introduction to Weapons Department, Ammunition Magazines, Shoring, Stowage and Handling Equipment
- Introduction to Air Launched Weapons

The course content will include the following Units of Instruction:
1. Introduction to Weapons Department, Ammunition Magazines, Shoring, Stowage and Handling Equipment
2. Introduction to Air Launched Weapons

Upon completion of this course, the Aviation Ordnanceman assigned to Shipboard, Shoreboard, and Shore Combatant Weapons Departments as conventional weapons handlers, will have the sufficient knowledge and skills of procedures and safety requirements for receiving, transferring and storing conventional weapons, assembly and disassembly of bombs and rockets, loading and unloading flare and rocket launchers and the linkless ammunition loading system, and the canning and decanning of miscellaneous ordnance, in accordance with applicable publications, while working under minimum supervision in a shipboard or shore environment.

Locations ..... MTU 4030, NAMTRAGRU DET, NS Mayport
MTU 4032, NAMTRAU, NAS Norfolk
MTU 4033, NAMTRAU, NAS North Island
MTU 4035, NAMTRAU, NAS Whidbey Island

Length..... 10 days

RFT date ..... In revision

Skill identifier... Not Applicable (NA)

TD..... KMU-556(D-2)/B, KMU-558(D-2)/B, KMU-559(D-2)/B, JPF ILT, CNU-589/E, AN/GYQ-79, MPCU, JDAM MAP

Prerequisite..... C-646-2011A Aviation Ordnanceman Common Core Class A1

(5) Explosive Ordnance Disposal Training. EOD training is conducted at the Naval Explosive Ordnance Disposal School (NAVSCOLEOD) at Eglin Air Force Base, Florida. Additional advanced and specialized EOD training is provided by EOD Technical Evaluation Units (EODTEUs) at Fort Story, Virginia and San Diego, California.

(a) Training Devices. The training device required for EOD training is the PEST.

- **Practical EOD System Trainer.** A PEST is a full-scale model of the JDAM assembly, containing inert versions of all explosive train components. The PEST possesses the same weight and center of gravity characteristics as the tactical JDAM. The PEST is used to teach and practice the missile's RSP. It is used in the identification line, the outdoor practice area, and the outdoor test area. The JDAM Guidance Set is classified as an INERT item; therefore there are no RSPs for the JDAM Guidance Set itself. However the PEST is provided to allow recognition of JDAM GBU variants. For detailed information on the PEST description refer to element I.G.2.b.(2). For detailed information on PEST requirements, refer to element IV.A.2.

- **Joint Programmable Fuze Inert Load Trainer.** The JPF ILT facilitates familiarization and procedural training for the JPF. The JPF ILT is certified inert. For detailed information on JPF ILT description refer to element I.G.2.b.(3). For detailed information on JPF ILT requirements, refer to element IV.A.2.

(b) Courses. JDAM is taught in the following EOD training courses. JDAM training material did not change student throughput or chargeable student billets, and, therefore, these courses do not appear in Parts II and III.

Table I-8. EOD Courses

COURSE NUMBER	COURSE TITLE	RFT DATE FOR JDAM
A-431-0011	Explosive Ordnance Disposal (EOD) Phase II (Navy)	On Line
A-431-0012	Explosive Ordnance Disposal (EOD) Phase II	On Line
G-431-0001	EOD Pre-deployment Team Training	On Line

c. Student Profiles. The following lists the enlisted manpower and personnel classifications required to support JDAM. In many instances, AO personnel who will support JDAM will not possess the component NEC because they attained their primary NEC prior to the recent A School and C School changes. See Figure I-2 through I-8 for more information.

RATING and NEC or MOS	TITLE	COMPONENT NEC or MOS
AO 8841	F/A-18E/F System Organizational Apprentice Maintenance Technician	AO 0000
AO 8341	F/A-18E/F System Organizational Maintenance Technician	AO 8841
AO 8842	F/A-18 Armament System Organizational Apprentice Maintenance Technician	AO 0000
AO 8342	F/A-18 System Organizational Maintenance Technician	AO 8842
AO 8845	F-14 Initial Organizational Maintenance Technician	AO 0000
AO 8345	F-14 System Organizational Maintenance Technician	AO 8845
MOS 6531	Aircraft Ordnance Technician (AV-8)	MOS 6511
MOS 6531	Aircraft Ordnance Technician (F/A-18)	MOS 6511
MOS 6541	Aviation Ordnance Intermediate Maintenance Technician	MOS 6511
AO 6801	Air Launched Weapons Technician	AO 0000
AO 6802	Strike/Armament Intermediate Repair	AO 0000

d. Training Pipelines. New training tracks were not be required for JDAM. The following training pipelines and tracks correspond to student profiles listed above. These pipelines and tracks are based on the training system that is in place today, and may not reflect actual progressions for personnel who completed formal training prior to the recent A School and C School changes. Shaded courses contain JDAM content. Introduction of the JDAM did not affect any organizational or intermediate level maintenance functions. Training tracks and associated courses are available in the OPNAV Aviation Training Management System (OATMS). The following training tracks apply and are available in the OATMS.

AO 0000	→	AO 8845	→	AO 8345
Aviation Ordnanceman Class A1		F-14 Initial Organizational Maintenance Technician		F-14 Systems Organizational Maintenance Technician
USN Strand		TRACK D-646-1647		TRACK D-646-1641
C-646-2011 C-646-2012		C-600-3601 D-646-9962 D-646-1642		C-600-3601 D-646-9963

Figure I-2 F-14 Systems Organizational Maintenance Technician Career Progression

AO 0000	→	AO 8841	→	AO 8341
Aviation Ordnanceman Class A1		F/A-18E/F Systems Organizational Apprentice Maintenance Technician		F/A-18E/F Systems Organizational Maintenance Technician
USN Strand		TRACK E-646-0642		TRACK E-646-0644
C-646-2011 C-646-2012		C-600-3601 C-646-9976		C-600-3601 C-646-9975

Figure I-3 USN F/A-18E/F Systems Organizational Maintenance Technician Career Progression

AO 0000	→	AO 8842	→	AO 8342
Aviation Ordnanceman Class A1		F/A-18 Systems Organizational Apprentice Maintenance Technician		F/A-18 Systems Organizational Maintenance Technician
USN Strand		TRACK D/E-646-0654		TRACK D/E-646-0641
C-646-2011 C-646-2012		C-600-3601 C-646-9973 D/E-646-0640		C-600-3601 C-646-9974

Figure I-4 USN F/A-18 Systems Organizational Maintenance Technician Career Progression

MOS 6511	→	MOS 6531
Aviation Ordnanceman Class A1		Aircraft Ordnance Technician (F/A-18)
Core Only		TRACK M-646-0654
C-646-2011		C-600-3601 C-646-9973 D/E-646-0640 D/E-646-0647

Figure I-5 USMC F/A-18 Aircraft Ordnance Technician Career Progression

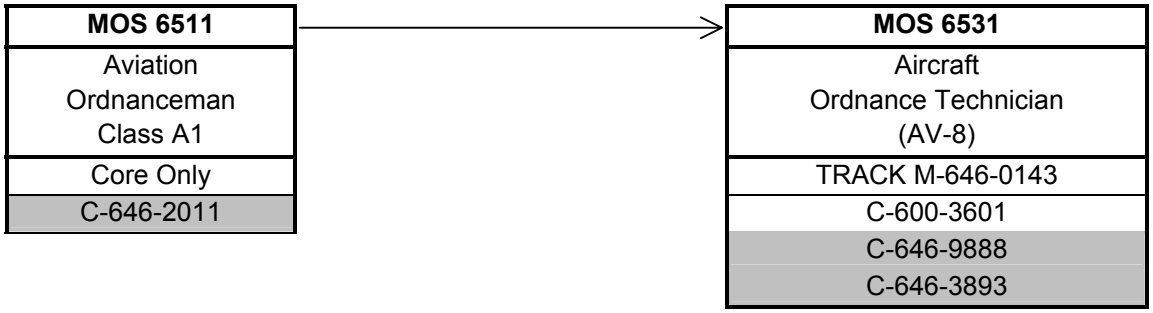

Figure I-6 AV-8 Aircraft Ordnance Technician Career Progression

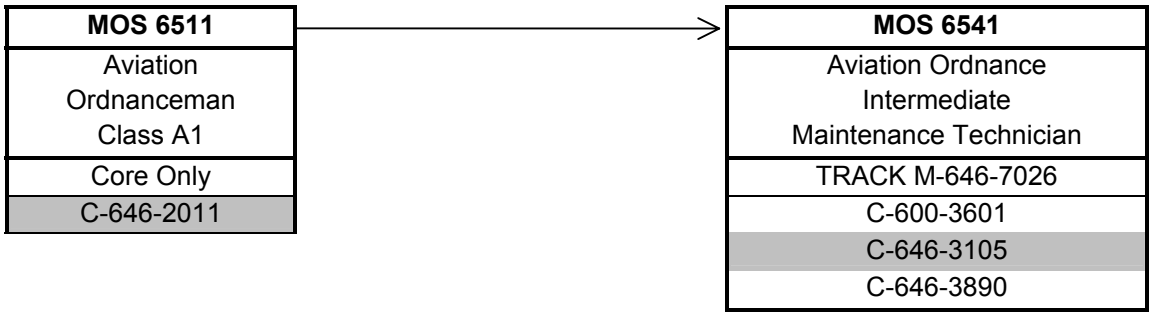

Figure I-7 Aviation Ordnance Intermediate Maintenance Technician Career Progression

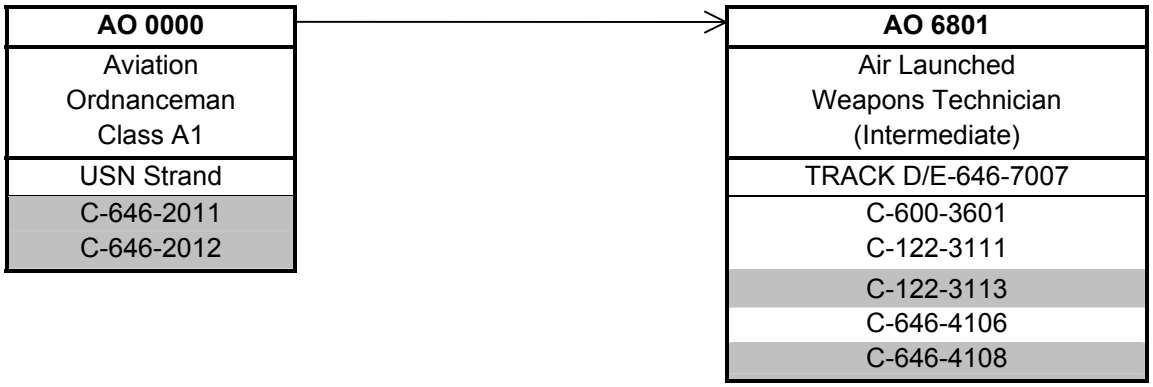

Figure I-8 Air Launched Weapons Technician Career Progression

I. ON-BOARD (IN-SERVICE) TRAINING

1. Proficiency or Other Training Organic to the New Development

a. Maintenance Training Improvement Program. The Maintenance Training Improvement Program (MTIP) is used to establish an effective and efficient training system responsive to fleet training requirements. MTIP is a training management tool that, through diagnostic testing, identifies individual training deficiencies at the organizational and intermediate

levels of maintenance. MTIP is the comprehensive testing of one's knowledge. It consists of a bank of test questions managed through automated data processing. The Deputy Chief of Staff for Training assisted in development of MTIP by providing those question banks (software) already developed by the Navy. MTIP was implemented per OPNAVINST 4790.2 series. MTIP allows increased effectiveness in the application of training resources through identification of skills and knowledge deficiencies at the activity, work center, or individual technician level. Refresher training is concentrated where needed to improve identified skill and knowledge shortfalls. The Aviation Maintenance Training Continuum System (AMTCS) will replace MTIP.

b. Aviation Maintenance Training Continuum System. AMTCS will provide career path training to the Sailor or Marine from their initial service entry to the end of their military career. AMTCS is planned to be an integrated system that will satisfy the training and administrative requirements of both the individual and the organization. The benefits will be manifested in the increased effectiveness of the technicians and the increased efficiencies of the management of the training business process. Where appropriate, capitalizing on technological advances and integrating systems and processes can provide the right amount of training at the right time, thus meeting the CNO's mandated "just-in-time" training approach.

Technology investments enable the development of several state-of-the-art training and administrative tools: Computer Based Training (CBT) for the technicians in the Fleet in the form of Interactive Courseware (ICW) with Computer Managed Instruction (CMI) and Computer Aided Instruction (CAI) for the schoolhouse.

Included in the AMTCS development effort is the Aviation Maintenance Training Continuum System - Software Module (ASM) which provides testing [Test and Evaluation (TEV)], recording [Electronic Training Jacket (ETJ)], and a Feedback system. The core functionality of these AMTCS tools are based and designed around the actual maintenance-related tasks the technicians perform, and the tasks are stored and maintained in a Master Task List (MTL) data bank. These tools are procured and fielded with appropriate COTS hardware and software, i.e., Fleet Training Devices (FTD) - Laptops, PCs, Electronic Classrooms (ECR), Learning Resource Centers (LRC), operating software, and network software and hardware.

Upon receipt of direction from OPNAV (N789H), AMTCS is to be implemented and the new tools integrated into the daily training environment of all participating aviation activities and supporting elements. AMTCS will serve as the standard training system for aviation maintenance training within the Navy and Marine Corps, and is planned to supersede the existing MTIP and Maintenance Training Management and Evaluation Program (MATMEP) programs.

The Ammunition and Explosive Handling Qualification and Certification (QUAL/CERT) Program requires periodic, local QUAL/CERT events to be documented in a QUAL/CERT Record. These QUAL/CERT Records will be maintained physically at the local activity, but will be entered electronically into the ETJ for tracking purposes.

c. Strike Fighter Training Program. NSAWC, which includes Topgun (N7), SFWSL, SFWSP, and the SWATSLANT, is developing post-FRS training at the squadron level for Navy

Strike Fighter aircraft (F-14 and F/A-18). This post-FRS training continuum is known as the Strike Fighter Training Program (SFTP), and is composed of three equally critical elements: The Strike Fighter Weapons & Tactics (SFWT) curricula, the Strike Fighter Training Instructor (SFTI), and the Strike Fighter Training System (SFTS). The SFWT curricula will be taught by each squadron's SFTI, who will be supported by the SFTS, a multimedia computer-based training system that will host CMI, CAI, CBT and ICW. Aircrew weapons proficiency training will continue to be accomplished using existing methods: Academic, Simulator Weapon Training Team (WTT),Weapon Systems Trainer (WST)), CATM and/or embedded aircraft simulation, and NCEA; but capability ratings will be performance-based rather than completion-based, i.e., it will not be based simply upon completing the training events, but upon how well they are completed. Training events will be measured using defined metrics, and collectively these events will be evaluated to determine actual combat readiness, quantitatively (objectively) rather than qualitatively (subjectively). See the SFTP NTSP, N88-NTSP-A-50-9906, for more information.

2. Personnel Qualification Standards. NA

3. Other On-Board or In-service Training Packages.

a. Marine Aviation Training Management Evaluation Program. Marine Corps on-board training is based on the current series of Marine Corps Order (MCO) P4790.12, Individual Training Standards System and MATMEP. This program is designed to meet Marine Corps, as well as Navy OPNAVINST 4790.2 (series) maintenance training requirements. It is a performance-based, standardized, level-progressive training management and evaluation program. It identifies and prioritizes task inventories by MOS through a front-end analysis process that identifies task, skill, and knowledge requirements of each MOS. MTIP questions coupled to MATMEP tasks will help identify training deficiencies that can be addressed with remedial training. (AMTCS is planned to replace MATMEP.)

b. Conventional Weapon Technical Proficiency Inspection. The Conventional Weapons Technical Proficiency Inspection (CWTPI0 is a graded inspection administered by Strike Fighter Wing (STRKFTRWING). It is governed by the policy and procedures established by each Type Commander (TYCOM). The inspection team is made up of SFWS instructors under the direction of the Wing Ordnance Officer. The CWTPI covers all areas of conventional weapon load and release, and control systems checks. The inspection evaluates the squadron's ability to wire-check, upload and download conventional ordnance correctly, use applicable publications, and place ordnance on its designated target. The squadron inspection is conducted annually, six months prior to deployment, or at the request of the squadron's Commanding Officer. All personnel, including squadron pilots, directly involved in the inspection, require a written examination. A 72-hour time limit is granted for the completion of the entire evolution. The final grade is an average score derived from the written exams, ordnance loads, wire checks, and the pilot's proficiency to deliver weapons on target. Pre-inspection training is provided by the appropriate SFWS followed by the CWTPI. The CWTPI determines the need for further conventional weapons load training of squadron AO and Aviation Electronics Technician (AT) personnel at the appropriate SFWS.

c. Marine Corps Combat Readiness Evaluation. Marine Corps Headquarters schedules the USMC fighter and attack wings for a yearly Combat Readiness Evaluation. This is part of the Marine Corps Combat Readiness Evaluation System. An entire Marine Corps activity is moved to another location to participate in war exercises and to be evaluated. Training is an on-going Marine Corps evolution that culminates with the Combat Readiness Evaluation. The evaluation determines the need for further conventional weapons load training of squadron personnel.

d. Explosive Handling Qualification and Certification Program. OPNAVINST 8020.14 and MCO P8020.11 implement the Ammunition and Explosive Handling QUAL/CERT Program. To minimize the probability of mishap, the potential for personnel errors are controlled through training (qualification) coupled with a management process designed to prevent inadequately trained personnel from performing ammunition and explosives jobs/tasks (certification). Aviation Ordnancemen are required to perform periodic, local QUAL/CERT events in order to be authorized to handle ordnance. Results of these QUAL/CERT events are documented in a hardcopy QUAL/CERT Record and kept on file by the local activity.

J. LOGISTICS SUPPORT

1. Manufacturer/Contract Numbers. The Boeing Company EMD Contract, F08626-94-C-0003, was awarded 11 October 1995. Since that time, four LRIP Lots have been exercised against that contract. An MS III decision for the GBU-31(V)2/B was granted on 23 March 2001. A Full-Rate Production contract will be awarded.

2. Program Documentation. The JDAM ORD, document number CAF/UAN-401-91-I-A, sets forth user requirements for the JDAM program. The latest approved JDAM ORD is dated 10 March 2001. The JDAM Single Acquisition Management Plan (SAMP) contains all essential programmatic information and is the primary document for Defense Acquisition Board (DAB) milestone decisions. The latest approved JDAM SAMP is dated April 2002. The JDAM TEMP contains the details for joint service test and evaluation for JDAM configurations. The latest approved TEMP is dated 14 November 2002. The JDAM Joint Integrated Logistic Support Plan (JILSP) contains essential joint service logistics management and technical information for JDAM configurations. The latest approved JDAM JILSP (Revision A) is dated May 2002

3. Technical Data Plan. The Air Force Technical Order Management Agency (TOMA) for the JDAM Program is ASC/YU at Eglin Air Force Base, FL. Under the pilot plan concept, the TOMA will be part of the Joint Integrated Logistic Support (JILS) IPT. The IPT is composed of Air Force, Navy/Marine Corps and Contractor personnel and will jointly be responsible for development of required technical data to support Air Force, Navy and Marine operations. There will be no Navy unique technical data for JPF. The Navy will use Air Force procured technical orders and source data to update existing Navy manuals as required. A Naval Air Technical Engineering Center (NATEC) representative will be part of the IPT to ensure Navy technical manual requirements are met. Current philosophy is:

- To develop Joint Technical Orders/Technical Manuals where possible.
- To incorporate Technical Data Planning into the JILSP and eliminate the need for duplicate planning documents.

4. Test Sets, Tools, and Test Equipment. JDAM was designed and developed with the objective to not introduce any peculiar support equipment, tools, test sets, or test equipment requirements. No peculiar support equipment, tools, test sets, or test equipment are required for JDAM. The development of JDAM ran in parallel with the development of CMBRE, which was being developed, as its name implies, to facilitate BIT and reprogramming for a variety of air launched munitions and guided missiles. JDAM requires CMBRE for off-aircraft BIT and reprogramming. A software interface written specifically for JDAM, the JDAM MAP, is required to operate CMBRE with JDAM. For detailed information on the CMBRE and JDAM MAP refer to element I.G.4.d. For detailed information on CMBRE and JDAM MAP requirements, refer to element IV.A.1.

5. Repair Parts. Repair and replacement parts for tactical and trainer Guidance Sets are listed in NAVAIR 11-5A-37, Work Package 998 00. Source, Maintenance and Recoverability codes are provided for theses items, as well as, part numbers and other significant information.

6. Human Systems Integration. NA

K. SCHEDULES

1. Schedule of Events

a. Installation/Delivery Schedule. Navy IOC for the GBU-31(V)2/B and GBU-31(V)4/B was achieved May 2001. LRIP Lots 1 through 4, have been delivered. The Navy acquired 547 Guidance Sets on Lot 2, 745 Guidance Sets on Lot 3, and 916 Guidance Sets on Lot 4. Production Lot 5 deliveries were completed 4th quarter FY 02, and will be a combination of 948 KMU-556A/B and 672 KMU-558A/B Guidance Sets. In 1999, the USS Kitty Hawk, USS John F. Kennedy, and MAG-31 Beaufort received JDAM Guidance Sets. In 2000, the USS John C. Stennis, MAG-11 Miramar, USS George Washington, and USS Abraham Lincoln received JDAM Guidance Sets. In 2001, the USS Harry S. Truman, USS Enterprise, and USS Constellation received JDAM Guidance Sets.

b. Ready for Operational Use Schedule. JDAM is Ready For Operational Use at the time of delivery. Routine break out and assembly procedures apply.

c. Time Required to Install at Operational Sites. Time limits for break out, assembly and load JDAM configured weapons is included in the Joint ORD. The Mean Time To Break Out (MTTBO) is 15 minutes for four Guidance Sets. The Mean Time To Assemble (MTTA) without performing BIT is 25 minutes for one Guidance Set. The MTTA with performing BIT is 30 minutes for one Guidance Set.

d. Foreign Military Sales and Other Source Delivery Schedule. Contact PMA 201 for details on Foreign Military Sales.

e. Training Device and Technical Training Equipment Delivery Schedule. JDAM Combination LDTs (1 Tail Assembly and 2 sets of Strakes) that support training for the GBU-31(V)2/B and GBU-31(V)4/B configurations were delivered during LRIP Lot 1. These assets were shipped to Navy and Marine Corps Schools that support F/A-18 AO community and the AO Intermediate Maintenance community (refer to Part IV.A.2). AN-GYQ-79 CMBRE and MPCU were delivered to Navy and Marine Corps Schools that support the AO Intermediate Maintenance community (refer to Part IV.A.1). LDTs for schools that support the F-14 and AV-8 AO community will be required if JDAM integration on those platforms is executed. Future updates to this NTSP will reflect the delivery schedules as they become available.

L. GOVERNMENT FURNISHED EQUIPMENT AND CONTRACTOR FURNISHED EQUIPMENT TRAINING REQUIREMENTS. NA

M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS

DOCUMENT TITLE	DOCUMENT NUMBER	PDA CODE	STATUS
F/A-18 Aircraft NTSP	N88-NTSPA-50-7703H/A	PMA265	Approved Dec 01
AV-8B Harrier II Weapon System NTSP	N88-NTSP-A-50-8210D/A	PMA257	Approved Dec 01
F-14A, F-14B, F-14D Aircraft NTSP	N88-NTSP-A-50-8511C/A	PMA241	Approved Feb 02
Strike Fighter Training Program NTSP	N88-NTSP-A-50-9906/D	PMA205	Draft Sep 99
JDAM Joint ORD	CAF/UAN-401-91-I-A	PMA 201	Approved Aug 95
JDAM SAMP	NA	PMA 201	Approved Mar 01
JDAM TEMP	NA	PMA 201	Approved Sep 00
JDAM JILSP	ARM-200	AIR-3.1.1K	Approved May 98

PART II - BILLET AND PERSONNEL REQUIREMENTS

The following elements are not affected by JDAM and, therefore, are not included in Part II of this NTSP:

NOTE 1: This section of the JDAM NTSP reflects Intermediate-level maintenance billet and personnel requirements for JDAM. It is a compilation of Navy NEC AO 6801 and Marine Corps MOS 6541. JDAM operator billets are programmed through the applicable aircraft NTSP, e.g., F/A-18C/D NTSP, as are the JDAM Organizational-level billets. The addition of JDAM to the Intermediate-level workload is only a percentage of the required workload for those NEC and MOS. The NEC and MOS are not dedicated to the JDAM and, therefore, the overall training throughput for the NEC and MOS will remain the same, i.e., it accounts for the total NEC/MOS community, and not just activities receiving JDAM.

NOTE 2: All billets identified in this section are programmed through other NTSPs, e.g., F/A-18 NTSP, applicable CV/CVN Class Total Ship NTSP, or applicable Shore Activity Manning Documents. The activities and associated billets are listed to assist the weapons training community in identifying and managing training requirements throughout the development, production, and deployment of JDAM.

PART II - BILLET AND PERSONNEL REQUIREMENTS

II.A. BILLET REQUIREMENTS

SOURCE OF Manpower: USN: Total Force Manpower Management System, TFMMS **DATE:** Jan 2003
SOURCE OF Manpower: USMC: Extracted from Table of Manpower Requirements, TFS MCCDC **DATE**: Jan 2003

II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

ACTIVITY, UIC		PFYs	CFY03	FY04	FY05	FY06	FY07
FLEET SUPPORT ACTIVITIES - USN							
AIR MAINT TRAGRPDET Mayport FL1	66069	1	0	0	0	0	0
AIROPS/NAVOSH PM Brunswick	3193B	1	0	0	0	0	0
CNATRA Kingsville TX	49149	1	0	0	0	0	0
COMAFLOATRAGRU Norfolk	30733	1	0	0	0	0	0
COMNAVAIRLANT	57012	1	0	0	0	0	0
COMSTKFITWINGLANT DET Beaufort	3006A	1	0	0	0	0	0
FASOTRAGRULANT	09810	1	0	0	0	0	0
NAF Mildenhall	57032	1	0	0	0	0	0
NAS Keflavik Island	63032	1	0	0	0	0	0
NAVAIRMAINTRAU Norfolk VA	66046	1	0	0	0	0	0
NAVSTKAIR TESTRON	39783	1	0	0	0	0	0
NWS Charleston SC	00193	1	0	0	0	0	0
Ordnacee Oceana Detachment	31279	1	0	0	0	0	0
SURFLANT AVORD MTT Norfolk VA	48764	1	0	0	0	0	0
USS Bataan LHD 5	21879	1	0	0	0	0	0
USS Eisenhower CVN-69	03369	1	0	0	0	0	0
USS Enterprise CVN-65	03365	1	0	0	0	0	0
USS George Washington CVN-73	21412	1	0	0	0	0	0
USS Harry S. Truman CVN-75	21853	1	0	0	0	0	0
USS Iwo Jima LHD 7	23027	1	0	0	0	0	0
USS John F. Kennedy CV-67	03367	1	0	0	0	0	0
USS Kearsarge LHD 3	21700	1	0	0	0	0	0
USS Nassau LHA 4	20725	1	0	0	0	0	0
USS Reagan CVN-76	22178	1	0	0	0	0	0
USS Roosevelt CVN-71	21247	1	0	0	0	0	0
USS Saipan LHA 2	20632	1	0	0	0	0	0
USS Wasp LHD 1	21560	1	0	0	0	0	0
NAF El Centro CA	60042	1	0	0	0	0	0
NAS Lemoore CA	63042	1	0	0	0	0	0
NAVAIRMAINTRAU North Island CA	66065	1	0	0	0	0	0
NAVAIRMAINTRAU Whidbey Island	66058	1	0	0	0	0	0
NAVAIRWPNSMAINTUNIT ONE	52821	1	0	0	0	0	0
NAVBASE Ventura Country Pt Mugu	69232	1	0	0	0	0	0
NAVSUPPFAC Diego Garica	68539	1	0	0	0	0	0
NAWCWPNDIV (NWCF) Pt Mugu CA	63126	1	0	0	0	0	0
USS Belleau Wood LHA 3	20633	1	0	0	0	0	0
USS Bonhomme Richard LHD 6	22202	1	0	0	0	0	0
USS Boxer LHD 4	21808	1	0	0	0	0	0
USS Constellation CV-64	03364	1	0	0	0	0	0
USS Essex LHD 2	21533	1	0	0	0	0	0
USS John C Stennis CVN-74	21847	1	0	0	0	0	0
USS Kitty Hawk CV-63	03363	1	0	0	0	0	0

II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

ACTIVITY, UIC		PFYs	CFY03	FY04	FY05	FY06	FY07
USS Lincoln CVN-72	21297	1	0	0	0	0	0
USS Nimitz CVN-68	03368	1	0	0	0	0	0
USS Peleliu LHA 5	20748	1	0	0	0	0	0
USS Tarawa LHA 1	20550	1	0	0	0	0	0
USS Vinson CVN-70	20993	1	0	0	0	0	0
TOTAL:		47	0	0	0	0	0
FLEET SUPPORT ACTIVITIES - USMC							
Blout Island Command	47956	1	0	0	0	0	0
Ft Worth, Site Support	00000	1	0	0	0	0	0
FW MALS (East Coast)	00000	1	0	0	0	0	0
H&HS MCAS Beafort SC	02031	1	0	0	0	0	0
H&HS MCAS Cherry Point NC	02002	1	0	0	0	0	0
H&HS MCAS New River NC	02021	1	0	0	0	0	0
HMH 772 CH-53E	09490	1	0	0	0	0	0
HMH CH-53E (East Coast)	00000	2	0	0	0	0	0
HMLA 773	09431	1	0	0	0	0	0
HMLA 773 DET	00000	1	0	0	0	0	0
HMLA 775 DET A	09415	1	0	0	0	0	0
HMLA AH-1/9 UH-1 (East Coast)	00000	2	0	0	0	0	0
HMM CH-46E (East Coast)	00000	5	0	0	0	0	0
MALS 41 (FW)	03007	1	0	0	0	0	0
MALS 42 (RW)	09513	1	0	0	0	0	0
MALS 49 (RW)	55555	1	0	0	0	0	0
MALS-ROTARY-WING (East Coast)	00000	2	0	0	0	0	0
MC PERS DEPT OF NAVY NON-DEPT	00000	1	0	0	0	0	0
VFA-106	09676	1	0	0	0	0	0
VMA-AV-8B (East Coast)	00000	3	0	0	0	0	0
VMAQ EA-6B (East Coast)	00000	4	0	0	0	0	0
VMAT 203	45483	1	0	0	0	0	0
VMFA 112	08954	1	0	0	0	0	0
VMFA 134	09365	1	0	0	0	0	0
VMFA 321	67235	1	0	0	0	0	0
VMFA F/A 18 (East Coast)	00000	4	0	0	0	0	0
VMFA(AW) F/A 18 (East Coast)	00000	3	0	0	0	0	0
VMFA-142	67243	1	0	0	0	0	0
VMM MV-22A	00000	1	0	0	0	0	0
FW MALS (West Coast)	00000	3	0	0	0	0	0
H&HS Futenma Japan	02601	1	0	0	0	0	0
H&HS Iwakuni Japan	02501	1	0	0	0	0	0
H&HS MCAS Camp Pendleton CA	02208	1	0	0	0	0	0
H&HS MCAS Miramar CA	02201	1	0	0	0	0	0
H&HS MCAS Yuma AZ	02230	1	0	0	0	0	0
HMH 769 CH-53E	09487	1	0	0	0	0	0
HMH CH-53D (West Coast)	00000	3	0	0	0	0	0
HMH CH-53E (West Coast)	00000	4	0	0	0	0	0
HMLA 775	55257	1	0	0	0	0	0
HMLA AH-1/9 UH-1 (West Coast)	00000	4	0	0	0	0	0
HMM 764 CH-46	09402	1	0	0	0	0	0

II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

ACTIVITY, UIC		PFYs	CFY03	FY04	FY05	FY06	FY07
HMM 774 CH-46	09430	1	0	0	0	0	0
HMM CH-46E (West Coast)	00000	8	0	0	0	0	0
HMT 303	55176	1	0	0	0	0	0
MAD China Lake	06117	1	0	0	0	0	0
MALS-ROTARY WING (West Coast)	00000	3	0	0	0	0	0
Marine Aviation Logistics Support	02300	1	0	0	0	0	0
MAWTS 1 Yuma AZ	55167	1	0	0	0	0	0
MCAF Kaneohe Bay HI	02203	1	0	0	0	0	0
MCAGCC 29 Palms	67399	1	0	0	0	0	0
VAQ 129	09707	1	0	0	0	0	0
VFA 125	31177	1	0	0	0	0	0
VMA AV-8B (West Coast)		4	0	0	0	0	0
VMAT 101	09965	1	0	0	0	0	0
VMFA F/A 18 (West Coast)	00000	4	0	0	0	0	0
VMFA(AW) F/A 18 (West Coast)	00000	3	0	0	0	0	0
TOTAL:		100	0	0	0	0	0

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
FLEET SUPPORT ACTIVITIES - USN					
AIR MAINT TRAGRPDET Mayport FL1, 66069					
ACDU	0	2	AOC	6801	9502
	0	2	AO1	6801	9502
ACTIVITY TOTAL:	0	4			
AIROPS/NAVOSH PM Brunswick, 3193B					
ACDU	0	2	AO1	6801	
	0	1	AO1	6801	0812
	0	3	AO2	6801	
	0	2	AO3	6801	
ACTIVITY TOTAL:	0	8			
CNATRA Kingsville TX, 49149					
ACDU	0	1	AO1	6801	9549
ACTIVITY TOTAL:	0	1			
COMAFLOATRAGRU Norfolk, 30733					
ACDU	0	2	AOC	6801	
ACTIVITY TOTAL:	0	2			
COMNAVAIRLANT, 57012					
ACDU	0	2	AOC	6801	
ACTIVITY TOTAL:	0	2			
COMSTKFITWINGLANT DET Beaufort, 3006A					
ACDU	0	1	AO1	6801	
	0	3	AO2	6801	
	0	3	AO3	6801	
ACTIVITY TOTAL:	0	7			
FASOTRAGRULANT, 09810					
ACDU	0	2	AO1	6801	9502
ACTIVITY TOTAL:	0	2			
NAF Mildenhall, 57032					
SELRES	0	1	AOC	6801	0812
ACTIVITY TOTAL:	0	1			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
NAS Keflavik Island, 63032					
ACDU	0	1	AOC	0812	6801
	0	1	AO2	6810	6801
	0	1	AO3	6801	
	0	1	AOC	6801	
ACTIVITY TOTAL:	0	4			
NAVAIRMAINTRAU Norfolk VA, 66046					
ACDU	0	1	AOC	6801	9502
	0	3	AO1	6801	9502
ACTIVITY TOTAL:	0	4			
NAVSTKAIR TESTRON, 39783					
ACDU	0	2	AO1	6801	
	0	1	AO2	6801	
	0	5	AO3	6801	
ACTIVITY TOTAL:	0	8			
NWS Charleston SC, 00193					
USMC	0	2	CPL	6541	
	0	1	GYSGT	6541	
	0	2	SGT	6541	
ACTIVITY TOTAL:	0	5			
Ordnacee Oceana Detachment, 31279					
ACDU	0	4	AO1	6801	
	0	9	AO2	6801	
	0	27	AO3	6801	
	0	2	AOC	6801	
ACTIVITY TOTAL:	0	42			
SURFLANT AVORD MTT Norfolk VA, 48764					
ACDU	0	5	AO1	6801	
ACTIVITY TOTAL:	0	5			
USS Bataan LHD 5, 21879					
ACDU	0	8	AO1	6801	
	0	2	AO2	6801	
	0	2	AOC	6801	
ACTIVITY TOTAL:	0	12			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
USS Eisenhower CVN-69, 03369					
ACDU	0	24	AO1	6801	
	0	33	AO2	6801	
	0	5	AOC	6801	
SELRES	0	4	AO1	6801	
	0	3	AO2	6801	
	0	3	AOC	6801	
USS Eisenhower CVN-69, 03369, FY04 Increment					
ACDU	0	7	AO2	6801	
USS Eisenhower CVN-69, 03369, FY06 Increment					
ACDU	0	3	AO1	6801	
	0	2	AO2	6801	
SELRES	0	1	AO1	6801	
	0	1	AOC	6801	
ACTIVITY TOTAL:	0	86			
USS Enterprise CVN-65, 03365					
ACDU	0	9	AO1	6801	
	0	1	AO2	6801	
	0	1	AOC	6801	
ACTIVITY TOTAL:	0	11			
USS George Washington CVN-73, 21412					
ACDU	0	25	AO1	6801	
	0	35	AO2	6801	
	0	6	AOC	6801	
SELRES	0	4	AO1	6801	
	0	3	AO2	6801	
	0	3	AOC	6801	
ACTIVITY TOTAL:	0	76			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
USS Harry S. Truman CVN-75, 21853					
ACDU	0	25	AO1	6801	
	0	36	AO2	6801	
	0	4	AOC	6801	
SELRES	0	4	AO1	6801	
	0	3	AO2	6801	
	0	3	AOC	6801	
USS Harry S. Truman CVN-75, 21853, FY04 Increment					
ACDU	0	4	AO2	6801	
USS Harry S. Truman CVN-75, 21853, FY05 Increment					
ACDU	0	3	AO1	6801	
	0	1	AO2	6801	
ACTIVITY TOTAL:	0	83			
USS Iwo Jima LHD 7, 23027					
ACDU	0	8	AO1	6801	
	0	2	AO2	6801	
	0	2	AOC	6801	
ACTIVITY TOTAL:	0	12			
USS John F. Kennedy CV-67, 03367					
ACDU	0	26	AO1	6801	
	0	27	AO2	6801	
	0	7	AOC	6801	
SELRES	0	2	AO1	6801	
	0	7	AO2	6801	
ACTIVITY TOTAL:	0	69			
USS Kearsarge LHD 3, 21700					
ACDU	0	8	AO1	6801	
	0	2	AO2	6801	
	0	2	AOC	6801	
ACTIVITY TOTAL:	0	12			
USS Nassau LHA 4, 20725					
ACDU	0	6	AO1	6801	
	0	10	AO2	6801	
	0	2	AOC	6801	
ACTIVITY TOTAL:	0	18			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
USS Reagan CVN-76, 22178					
ACDU	0	29	AO1	6801	
	0	37	AO2	6801	
	0	9	AOC	6801	
USS Reagan CVN-76, 22178, FY03 Increment					
ACDU	0	4	AO1	6801	
	0	6	AO2	6801	
SELRES	0	2	AOC	6801	
ACTIVITY TOTAL:	0	87			
USS Roosevelt CVN-71, 21247					
ACDU	0	25	AO1	6801	
	0	37	AO2	6801	
	0	6	AOC	6801	
SELRES	0	3	AOC	6801	
	0	4	AO1	6801	
	0	3	AO2	6801	
USS Roosevelt CVN-71, 21247, FY06 Increment					
ACDU	0	4	AO2	6801	
ACTIVITY TOTAL:	0	82			
USS Saipan LHA 2, 20632					
ACDU	0	6	AO1	6801	
	0	10	AO2	6801	
	0	2	AOC	6801	
ACTIVITY TOTAL:	0	18			
USS Wasp LHD 1, 21560					
ACDU	0	8	AO1	6801	
	0	2	AO2	6801	
	0	2	AOC	6801	
ACTIVITY TOTAL:	0	12			
NAF El Centro CA, 60042					
ACDU	0	1	AOC	6801	
	0	1	AO1	6801	
	0	5	AO2	6801	
ACTIVITY TOTAL:	0	7			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
NAS Lemoore CA, 63042					
ACDU	0	2	AO1	6801	
	0	6	AO2	6801	
ACTIVITY TOTAL:	0	8			
NAVAIRMAINTRAU North Island CA, 66065					
ACDU	0	3	AO1	6801	9502
	0	2	AO2	6801	9502
ACTIVITY TOTAL:	0	5			
NAVAIRMAINTRAU Whidbey Island, 66058					
ACDU	0	1	AOC	6801	9502
	0	3	AO1	6801	9502
ACTIVITY TOTAL:	0	4			
NAVAIRWPNSMAINTUNIT ONE, 52821					
ACDU	0	3	AO1	6801	
	0	12	AO2	6801	
	0	4	AO3	6801	
	0	1	AOC	6801	
ACTIVITY TOTAL:	0	20			
NAVBASE Ventura Country Pt Mugu, 69232					
ACDU	0	2	AO1	6801	
	0	1	AO2	6801	
ACTIVITY TOTAL:	0	3			
NAVSUPPFAC Diego Garica, 68539					
ACDU	0	1	AO1	6801	
	0	2	AO2	6801	
	0	2	AO3	6801	
ACTIVITY TOTAL:	0	5			
NAWCWPNDIV (NWCF) Pt Mugu CA, 63126					
ACDU	0	1	AO1	6801	
ACTIVITY TOTAL:	0	1			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
USS Belleau Wood LHA 3, 20633					
ACDU	0	4	AO1	6801	
	0	8	AO2	6801	
	0	4	AO3	6801	
	0	2	AOC	6801	
ACTIVITY TOTAL:	0	18			
USS Bonhomme Richard LHD 6, 22202					
ACDU	0	8	AO1	6801	
	0	2	AO2	6801	
	0	2	AOC	6801	
ACTIVITY TOTAL:	0	12			
USS Boxer LHD 4, 21808					
ACDU	0	8	AO1	6801	
	0	2	AO2	6801	
	0	2	AOC	6801	
ACTIVITY TOTAL:	0	12			
USS Constellation CV-64, 03364					
ACDU	0	10	AO1	6801	
	0	1	AO2	6801	
ACTIVITY TOTAL:	0	11			
USS Essex LHD 2, 21533					
ACDU	0	8	AO1	6801	
	0	2	AO2	6801	
	0	2	AOC	6801	
ACTIVITY TOTAL:	0	12			
USS John C Stennis CVN-74, 21847					
ACDU	0	29	AO1	6801	
	0	37	AO2	6801	
	0	9	AOC	6801	
USS John C Stennis CVN-74, 21847, FY04 Increment					
SELRES	0	2	AO2	6801	
ACTIVITY TOTAL:	0	77			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
USS Kitty Hawk CV-63, 03363					
ACDU	0	25	AO1	6801	
	0	29	AO2	6801	
	0	4	AOC	6801	
SELRES	0	4	AO1	6801	
	0	2	AO2	6801	
USS Kitty Hawk CV-63, 03363, FY03 Increment					
SELRES	0	1	AOC	6801	
USS Kitty Hawk CV-63, 03363, FY04 Increment					
ACDU	0	4	AO2	6801	
ACTIVITY TOTAL:	0	69			
USS Lincoln CVN-72, 21297					
ACDU	0	29	AO1	6801	
	0	37	AO2	6801	
	0	9	AOC	6801	
ACTIVITY TOTAL:	0	75			
USS Nimitz CVN-68, 03368					
ACDU	0	29	AO1	6801	
	0	37	AO2	6801	
	0	9	AOC	6801	
ACTIVITY TOTAL:	0	75			
USS Peleliu LHA 5, 20748					
ACDU	0	4	AO1	6801	
	0	9	AO2	6801	
	0	2	AOC	6801	
ACTIVITY TOTAL:	0	15			
USS Tarawa LHA 1, 20550					
ACDU	0	5	AO1	6801	
	0	9	AO2	6801	
	0	2	AOC	6801	
ACTIVITY TOTAL:	0	16			
USS Vinson CVN-70, 20993					
ACDU	0	29	AO1	6801	
	0	37	AO2	6801	
	0	9	AOC	6801	
ACTIVITY TOTAL:	0	75			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
FLEET SUPPORT ACTIVITIES - USMC					
Blout Island Command, 47956					
USMC	0	1	SGT	6541	
	0	1	SSGT	6541	
ACTIVITY TOTAL:	0	2			
Ft Worth, Site Support, 00000					
USMC	0	1	GYSGT	6541	
	0	1	SGT	6541	
ACTIVITY TOTAL:	0	2			
FW MALS (East Coast), 00000					
USMC	0	9	CPL	6541	
	0	4	GYSGT	6541	
	0	20	LCPL	6541	
	0	7	SGT	6541	
	0	4	SSGT	6541	
ACTIVITY TOTAL:	0	44			
H&HS MCAS Beafort SC, 02031					
USMC	0	1	GYSGT	6541	
	0	1	LCPL	6541	
	0	1	SGT	6541	
	0	1	SGT	6541	9954
	0	1	SSGT	6541	
ACTIVITY TOTAL:	0	5			
H&HS MCAS Cherry Point NC, 02002					
USMC	0	4	CPL	6541	
	0	4	SGT	6541	
	0	3	SSGT	6541	
ACTIVITY TOTAL:	0	11			
H&HS MCAS New River NC, 02021					
USMC	0	1	CPL	6541	
	0	1	LCPL	6541	
	0	2	SGT	6541	
	0	1	SSGT	6541	
ACTIVITY TOTAL:	0	5			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
HMH 772 CH-53E, 09490					
USMC	0	1	CPL	6541	
	0	1	LCPL	6541	
ACTIVITY TOTAL:	0	2			
HMH CH-53E (East Coast), 00000					
USMC	0	10	CPL	6541	
	0	2	LCPL	6541	
ACTIVITY TOTAL:	0	12			
HMLA 773, 09431					
USMC	0	4	CPL	6541	
	0	6	LCPL	6541	
	0	2	SGT	6541	
ACTIVITY TOTAL:	0	12			
HMLA 773 DET, 00000					
USMC	0	2	CPL	6541	
	0	3	LCPL	6541	
	0	1	SGT	6541	
ACTIVITY TOTAL:	0	6			
HMLA 775 DET A, 09415					
USMC	0	2	CPL	6541	
	0	3	LCPL	6541	
	0	1	SGT	6541	
ACTIVITY TOTAL:	0	6			
HMLA AH-1/9 UH-1 (East Coast), 00000					
USMC	0	12	CPL	6541	
	0	18	LCPL	6541	
	0	6	SGT	6541	
ACTIVITY TOTAL:	0	36			
HMM CH-46E (East Coast), 00000					
USMC	0	10	CPL	6541	
ACTIVITY TOTAL:	0	10			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
MALS 41 (FW), 03007					
USMC	0	8	CPL	6541	
	0	5	GYSGT	6541	
	0	21	LCPL	6541	
	0	8	SGT	6541	
	0	6	SSGT	6541	
ACTIVITY TOTAL:	0	48			
MALS 42 (RW), 09513					
USMC	0	1	CPL	6541	
	0	2	GYSGT	6541	
	0	4	LCPL	6541	
	0	1	SGT	6541	
	0	3	SSGT	6541	
ACTIVITY TOTAL:	0	11			
MALS 49 (RW), 55555					
USMC	0	1	CPL	6541	
	0	2	GYSGT	6541	
	0	3	LCPL	6541	
	0	1	SGT	6541	
	0	3	SSGT	6541	
ACTIVITY TOTAL:	0	10			
MALS-ROTARY-WING (East Coast), 00000					
USMC	0	2	CPL	6541	
	0	4	GYSGT	6541	
	0	10	LCPL	6541	
	0	2	SGT	6541	
	0	6	SSGT	6541	
ACTIVITY TOTAL:	0	24			
MC PERS DEPT OF NAVY NON-DEPT, 00000					
USMC	0	2	CPL	6541	
	0	7	GYSGT	6541	
	0	2	SGT	6541	
	0	2	SSGT	6541	
ACTIVITY TOTAL:	0	13			
VFA-106, 09676					
USMC	0	1	SGT	6541	
ACTIVITY TOTAL:	0	1			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
VMA-AV-8B (East Coast), 00000					
USMC	0	9	CPL	6541	
	0	21	LCPL	6541	
	0	6	SGT	6541	
ACTIVITY TOTAL:	0	36			
VMAQ EA-6B (East Coast), 00000					
USMC	0	4	CPL	6541	
ACTIVITY TOTAL:	0	4			
VMAT 203, 45483					
USMC	0	3	GYSGT	6541	
	0	1	LCPL	6541	
	0	20	SGT	6541	
	0	4	SSGT	6541	
ACTIVITY TOTAL:	0	28			
VMFA 112, 08954					
USMC	0	1	GYSGT	6541	
	0	6	LCPL	6541	
	0	2	SGT	6541	
	0	1	SSGT	6541	
ACTIVITY TOTAL:	0	10			
VMFA 134, 09365					
USMC	0	1	GYSGT	6541	
	0	6	LCPL	6541	
	0	2	SGT	6541	
	0	1	SSGT	6541	
ACTIVITY TOTAL:	0	10			
VMFA 321, 67235					
USMC	0	1	GYSGT	6541	
	0	6	LCPL	6541	
	0	2	SGT	6541	
	0	1	SSGT	6541	
ACTIVITY TOTAL:	0	10			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
VMFA F/A 18 (East Coast), 00000					
USMC	0	4	GYSGT	6541	
	0	24	LCPL	6541	
	0	8	SGT	6541	
	0	4	SSGT	6541	
ACTIVITY TOTAL:	0	40			
VMFA(AW) F/A 18 (East Coast), 00000					
USMC	0	3	CPL	6541	
	0	15	LCPL	6541	
	0	9	SGT	6541	
	0	6	SSGT	6541	
ACTIVITY TOTAL:	0	33			
VMFA-142, 67243					
USMC	0	1	GYSGT	6541	
	0	6	LCPL	6541	
	0	2	SGT	6541	
	0	1	SSGT	6541	
ACTIVITY TOTAL:	0	10			
VMM MV-22A, 00000					
USMC	0	2	CPL	6541	
ACTIVITY TOTAL:	0	2			
FW MALS (West Coast), 00000					
USMC	0	27	CPL	6541	
	0	12	GYSGT	6541	
	0	60	LCPL	6541	
	0	21	SGT	6541	
	0	12	SSGT	6541	
ACTIVITY TOTAL:	0	132			
H&HS Futenma Japan, 02601					
USMC	0	2	CPL	6541	
	0	1	GYSGT	6541	
	0	4	LCPL	6541	
	0	3	SGT	6541	
	0	2	SSGT	6541	
ACTIVITY TOTAL:	0	12			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
H&HS Iwakuni Japan, 02501					
USMC	0	1	CPL	6541	
	0	1	LCPL	6541	
	0	3	SGT	6541	
	0	2	SSGT	6541	
ACTIVITY TOTAL:	0	7			
H&HS MCAS Camp Pendleton CA, 02208					
USMC	0	2	CPL	6541	
	0	1	GYSGT	6541	
	0	1	LCPL	6541	
	0	1	SGT	6541	
	0	3	SSGT	6541	
ACTIVITY TOTAL:	0	8			
H&HS MCAS Miramar CA, 02201					
USMC	0	1	CPL	6541	
	0	2	GYSGT	6541	
	0	1	LCPL	6541	
	0	2	SGT	6541	
	0	2	SSGT	6541	
ACTIVITY TOTAL:	0	8			
H&HS MCAS Yuma AZ, 02230					
USMC	0	3	GYSGT	6541	
	0	1	LCPL	6541	
	0	1	SGT	6541	
	0	1	SSGT	6541	
	0	1	SSGT	6541	9954
ACTIVITY TOTAL:	0	7			
HMH 769 CH-53E, 09487					
USMC	0	1	CPL	6541	
	0	1	LCPL	6541	
ACTIVITY TOTAL:	0	2			
HMH CH-53D (West Coast), 00000					
USMC	0	6	CPL	6541	
ACTIVITY TOTAL:	0	6			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
HMH CH-53E (West Coast), 00000					
USMC	0	20	CPL	6541	
	0	4	LCPL	6541	
ACTIVITY TOTAL:	0	24			
HMLA 775, 55257					
USMC	0	4	CPL	6541	
	0	6	LCPL	6541	
	0	2	SGT	6541	
ACTIVITY TOTAL:	0	12			
HMLA AH-1/9 UH-1 (West Coast), 00000					
USMC	0	24	CPL	6541	
	0	36	LCPL	6541	
	0	12	SGT	6541	
ACTIVITY TOTAL:	0	72			
HMM 764 CH-46, 09402					
USMC	0	2	CPL	6541	
ACTIVITY TOTAL:	0	2			
HMM 774 CH-46, 09430					
USMC	0	2	CPL	6541	
ACTIVITY TOTAL:	0	2			
HMM CH-46E (West Coast), 00000					
USMC	0	16	CPL	6541	
ACTIVITY TOTAL:	0	16			
HMT 303, 55176					
USMC	0	3	LCPL	6541	
	0	3	SGT	6541	
ACTIVITY TOTAL:	0	6			
MAD China Lake, 06117					
USMC	0	1	GYSGT	6541	
	0	1	SSGT	6541	
ACTIVITY TOTAL:	0	2			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
MALS-ROTARY WING (West Coast), 00000					
USMC	0	3	CPL	6541	
	0	6	GYSGT	6541	
	0	15	LCPL	6541	
	0	3	SGT	6541	
	0	9	SSGT	6541	
ACTIVITY TOTAL:	0	36			
Marine Aviation Logistics Support, 02300					
USMC	0	2	CPL	6541	
	0	1	GYSGT	6541	
	0	1	LCPL	6541	
	0	1	SGT	6541	
	0	1	SSGT	6541	
ACTIVITY TOTAL:	0	6			
MAWTS 1 Yuma AZ, 55167					
USMC	0	1	GYSGT	6541	
	0	1	LCPL	6541	
ACTIVITY TOTAL:	0	2			
MCAF Kaneohe Bay HI, 02203					
USMC	0	4	LCPL	6541	
	0	2	SGT	6541	
	0	1	SSGT	6541	
ACTIVITY TOTAL:	0	7			
MCAGCC 29 Palms, 67399					
USMC	0	3	LCPL	6541	
ACTIVITY TOTAL:	0	3			
VAQ 129, 09707					
USMC	0	1	SGT	6541	
ACTIVITY TOTAL:	0	1			
VFA 125, 31177					
USMC	0	1	SGT	6541	
ACTIVITY TOTAL:	0	1			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
VMA AV-8B (West Coast)					
USMC	0	12	CPL	6541	
	0	28	LCPL	6541	
	0	8	SGT	6541	
ACTIVITY TOTAL:	0	48			
VMAT 101, 09965					
USMC	0	3	CPL	6541	
	0	6	LCPL	6541	
ACTIVITY TOTAL:	0	9			
VMFA F/A 18 (West Coast), 00000					
USMC	0	4	GYSGT	6541	
	0	24	LCPL	6541	
	0	8	SGT	6541	
	0	4	SSGT	6541	
ACTIVITY TOTAL:	0	40			
VMFA(AW) F/A 18 (West Coast), 00000					
USMC	0	3	CPL	6541	
	0	15	LCPL	6541	
	0	9	SGT	6541	
	0	6	SSGT	6541	
ACTIVITY TOTAL:	0	33			

II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS		PFYs OFF	PFYs ENL	CFY03 OFF	CFY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL	FY07 OFF	FY07 ENL
USN FLEET SUPPORT ACTIVITIES - ACDU														
AOC	0812	6801		1	0		0		0		0		0	
AOC	6801	9502		4	0		0		0		0		0	
AO1	6801			415	4		0		3		3		0	
AO1	6801	0812		1	0		0		0		0		0	
AO1	6801	9502		13	0		0		0		0		0	
AO1	6801	9549		1	0		0		0		0		0	
AO2	6801			518	6		15		1		6		0	
AO2	6810	6801		1	0		0		0		0		0	
AO2	6801	9502		2	0		0		0		0		0	
AO3	6801			49	0		0		0		0		0	
AOC	6801			117	0		0		0		0		0	
USN FLEET SUPPORT ACTIVITIES - SELRES														
AOC	6801	0812		1	0		0		0		0		0	
AO1	6801			19	0		0		0		1		0	
AO2	6801			21	0		2		0		0		0	
AOC	6801			12	3		0		0		1		0	
USMC FLEET SUPPORT ACTIVITIES - USMC														
CPL	6541			218	0		0		0		0		0	
GYSGT	6541			69	0		0		0		0		0	
LCPL	6541			393	0		0		0		0		0	
SGT	6541			173	0		0		0		0		0	
SGT	6541	9954		1	0		0		0		0		0	
SSGT	6541			92	0		0		0		0		0	
SSGT	6541	9954		1	0		0		0		0		0	

SUMMARY TOTALS:

USN FLEET SUPPORT ACTIVITIES - ACDU														
				1122	10		15		4		9		0	
USN FLEET SUPPORT ACTIVITIES - SELRES														
				53	3		2		0		2		0	
USMC FLEET SUPPORT ACTIVITIES - USMC														
				947	0		0		0		0		0	

II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF	PFYs ENL	CFY03 OFF	CFY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL	FY07 OFF	FY07 ENL
GRAND TOTALS:													
USN - ACDU		1122		10		15		4		9		0	
USN - SELRES		53		3		2		0		2		0	
USMC - USMC		947		0		0		0		0		0	

II.A.2.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY DEACTIVATION SCHEDULE

SOURCE OF SCHEDULE: Source **DATE:** Jan 2000

ACTIVITY, UIC		PFYs	CFY03	FY04	FY05	FY06	FY07
FLEET SUPPORT ACTIVITIES - USN							
USS Constellation CV-64	03364	0	0	1	0	0	0
TOTAL:		0	0	1	0	0	0

II.A.2.b. BILLETS TO BE DELETED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
FLEET SUPPORT ACTIVITIES - USN					
USS Harry S. Truman CVN-75, 21853, FY03 Increment					
ACDU	0	1	AOC	6801	
ACTIVITY TOTAL:	0	1			
USS Constellation CV-64, 03364, FY04 Increment					
ACDU	0	10	AO1	6801	
	0	1	AO2	6801	
ACTIVITY TOTAL:	0	11			
USS Kitty Hawk CV-63, 03363, FY03 Increment					
ACDU	0	2	AO1	6801	
	0	1	AOC	6801	
SELRES	0	2	AO1	6801	
ACTIVITY TOTAL:	0	5			

II.A.2.c. TOTAL BILLETS TO BE DELETED IN OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF	PFYs ENL	CFY03 OFF	CFY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL	FY07 OFF	FY07 ENL
USN FLEET SUPPORT ACTIVITIES - ACDU													
AO1	6801			10	-2	-10		0		0		0	
AO2	6801			1	0	-1		0		0		0	
AOC	6801			0	-2	0		0		0		0	
USN FLEET SUPPORT ACTIVITIES - SELRES													
AO1	6801			0	-2	0		0		0		0	

SUMMARY TOTALS:

USN FLEET SUPPORT ACTIVITIES - ACDU													
				11	-4	-11		0		0		0	
USN FLEET SUPPORT ACTIVITIES - SELRES													
				0	-2	0		0		0		0	

GRAND TOTALS:

USN - ACDU													
				11	-4	-11		0		0		0	
USN - SELRES													
				0	-2	0		0		0		0	

II.A.3. TRAINING ACTIVITIES INSTRUCTOR AND SUPPORT BILLET REQUIREMENTS

DESIG RATING	PNEC/SNEC PMOS/SMOS		PFYs OFF	PFYs ENL	CFY03 OFF	CFY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL	FY07 OFF	FY07 ENL
TRAINING ACTIVITY, LOCATION, UIC: NAMTRAGRU DET, Mayport, 66069														
INSTRUCTOR BILLETS														
USN														
AOC	6801	9502	0	2	0	2	0	2	0	2	0	2	0	2
AO1	6801	9502	0	2	0	2	0	2	0	2	0	2	0	2
TOTAL:			0	4	0	4	0	4	0	4	0	4	0	4
TRAINING ACTIVITY, LOCATION, UIC: NAMTRA MARUNIT, MCAS Cherry Point, 66047														
INSTRUCTOR BILLETS														
USMC														
GYSGT	6541		0	1	0	1	0	1	0	1	0	1	0	1
SGT	6541		0	19	0	19	0	19	0	19	0	19	0	19
SSGT	6541		0	2	0	2	0	2	0	2	0	2	0	2
TOTAL:			0	22	0	22	0	22	0	22	0	22	0	22
TRAINING ACTIVITY, LOCATION, UIC: NAMTRAU, Norfolk VA, 66046														
INSTRUCTOR BILLETS														
USN														
AOC	6801	9502	0	1	0	1	0	1	0	1	0	1	0	1
AO1	6801	9502	0	3	0	3	0	3	0	3	0	3	0	3
TOTAL:			0	4	0	4	0	4	0	4	0	4	0	4
TRAINING ACTIVITY, LOCATION, UIC: NAMTRAU, North Island CA, 66065														
INSTRUCTOR BILLETS														
USN														
AO1	6801	9502	0	3	0	3	0	3	0	3	0	3	0	3
AO2	6801	9502	0	2	0	2	0	2	0	2	0	2	0	2
TOTAL:			0	5	0	5	0	5	0	5	0	5	0	5

II.A.3. TRAINING ACTIVITIES INSTRUCTOR AND SUPPORT BILLET REQUIREMENTS

DESIG RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF	PFYs ENL	CFY03 OFF	CFY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL	FY07 OFF	FY07 ENL
TRAINING ACTIVITY, LOCATION, UIC: NAMTRAU, Whidbey Island, 66058													
INSTRUCTOR BILLETS													
USN													
AOC	6801 9502	0	2	0	2	0	2	0	2	0	2	0	2
AO1	6801 9502	0	3	0	3	0	3	0	3	0	3	0	3
TOTAL:		0	5	0	5	0	5	0	5	0	5	0	5

II.A.4. CHARGEABLE STUDENT BILLET REQUIREMENTS

ACTIVITY, LOCATION, UIC	USN/ USMC	PFYs OFF	PFYs ENL	CFY03 OFF	CFY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL	FY07 OFF	FY07 ENL
NAMTRAGRU DET, Mayport, 66069													
	USN	0.0	1.9	0.0	2.0	0.0	2.1	0.0	2.2	0.0	2.1	0.0	2.1
NAMTRA MARUNIT, MCAS Cherry Point, 66047													
	USMC	0.0	11.9	0.0	11.9	0.0	11.9	0.0	11.9	0.0	11.9	0.0	11.9
NAMTRAU, Norfolk VA,66046													
	USN	0.0	4.4	0.0	4.8	0.0	4.7	0.0	4.6	0.0	4.9	0.0	4.6
NAMTRAU, Whidbey Island, 66058													
	USN	0.0	3.0	0.0	3.0	0.0	3.0	0.0	3.0	0.0	3.0	0.0	3.0
	USN	0.0	3.1	0.0	3.1	0.0	3.1	0.0	3.0	0.0	3.0	0.0	3.0
SUMMARY TOTALS:													
	USN	0.0	12.4	0.0	12.9	0.0	12.9	0.0	12.8	0.0	13.0	0.0	12.7
	USMC	0.0	11.9	0.0	11.9	0.0	11.9	0.0	11.9	0.0	11.9	0.0	11.9
GRAND TOTALS:													
		0.0	24.3	0.0	24.8	0.0	24.8	0.0	24.7	0.0	24.9	0.0	24.6

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY03 +/-	CFY03 CUM	FY04 +/-	FY04 CUM	FY05 +/-	FY05 CUM	FY06 +/-	FY06 CUM	FY07 +/-	FY07 CUM
a. OFFICER - USN				Not Applicable									
b. ENLISTED - USN													
Fleet Support Billets ACDU and TAR													
AOC	0812	6801	1	0	1	0	1	0	1	0	1	0	1
AOC	6801	9502	4	0	4	0	4	0	4	0	4	0	4
AO1	6801		415	4	419	0	419	3	422	3	425	0	425
AO1	6801	0812	1	0	1	0	1	0	1	0	1	0	1
AO1	6801	9502	13	0	13	0	13	0	13	0	13	0	13
AO1	6801	9549	1	0	1	0	1	0	1	0	1	0	1
AO2	6801		518	6	524	15	539	1	540	6	546	0	546
AO2	6810	6801	1	0	1	0	1	0	1	0	1	0	1
AO2	6801	9502	2	0	2	0	2	0	2	0	2	0	2
AO3	6801		49	0	49	0	49	0	49	0	49	0	49
AOC	6801		117	0	117	0	117	0	117	0	117	0	117
Staff Billets ACDU and TAR													
AOC	6801	9502	5	0	5	0	5	0	5	0	5	0	5
AO1	6801	9502	11	0	11	0	11	0	11	0	11	0	11
AO2	6801	9502	2	0	2	0	2	0	2	0	2	0	2
Chargeable Student Billets ACDU and TAR													
			13	0	13	0	13	0	13	0	13	0	13
SELRES Billets													
AOC	6801	0812	1	0	1	0	1	0	1	0	1	0	1
AO1	6801		19	0	19	0	19	0	19	1	20	0	20
AO2	6801		21	0	21	2	231	0	23	0	23	0	23
AOC	6801		12	3	15	0	15	0	15	1	16	0	16
TOTAL USN ENLISTED BILLETS:													
Fleet Support			1122	10	1132	15	1147	4	1151	9	1160	0	1160
Staff			18	0	18	0	18	0	18	0	18	0	18
Chargeable Student			13	0	13	0	13	0	13	0	13	0	13
SELRES			53	3	56	2	58	0	58	2	60	0	60

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY03 +/-	CFY03 CUM	FY04 +/-	FY04 CUM	FY05 +/-	FY05 CUM	FY06 +/-	FY06 CUM	FY07 +/-	FY07 CUM
c. OFFICER - USMC				Not Applicable									
d. ENLISTED - USMC													
Fleet Support Billets USMC and AR													
CPL	6541		220	0	220	0	220	0	220	0	220	0	220
GYSGT	6541		70	0	70	0	70	0	70	0	70	0	70
LCPL	6541		393	0	393	0	393	0	393	0	393	0	393
SGT	6541		175	0	175	0	175	0	175	0	175	0	175
SGT	6541	9954	1	0	1	0	1	0	1	0	1	0	1
SSGT	6541		92	0	92	0	92	0	92	0	92	0	92
SSGT	6541	9954	1	0	1	0	1	0	1	0	1	0	1
Staff Billets USMC and AR													
GYSGT	6541		1	0	1	0	1	0	1	0	1	0	1
SGT	6541		19	0	19	0	19	0	19	0	19	0	19
SSGT	6541		2	0	2	0	2	0	2	0	2	0	2
Chargeable Student Billets USMC and AR													
			12	0	12	0	12	0	12	0	12	0	12
TOTAL USMC ENLISTED BILLETS:													
Fleet Support			952	0	952	0	952	0	952	0	952	0	952
Staff			22	0	22	0	22	0	22	0	22	0	22
Chargeable Student			12	0	12	0	12	0	12	0	12	0	12

II.B. PERSONNEL REQUIREMENTS

II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: D-646-7007, General Shipboard/NAS Weapons Department AVORD Maintenance
COURSE LENGTH: 7.0 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% USMC: 0% **BACKOUT FACTOR:** 0.14

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NAMTRAGRU DET, Mayport												
	USN	ACDU		54		58		59		56		56
		SELRES		2		2		2		2		0
NAMTRAU, Norfolk VA												
	USN	ACDU		131		130		127		135		129
		SELRES		3		2		3		2		2
		TOTAL:		190		192		191		195		187

CIN, COURSE TITLE: E-646-7007, General Shipboard/NAS Weapons Department AVORD Maintenance
COURSE LENGTH: 7.0 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% USMC: 0% **BACKOUT FACTOR:** 0.14

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NAMTRAU, North Island CA												
	USN	ACDU		87		86		83		83		83
		SELRES		0		0		1		0		0
NAMTRAU, Whidbey Island												
	USN	ACDU		82		82		82		82		82
		SELRES		0		0		1		0		0
		TOTAL:		169		168		167		165		165

CIN, COURSE TITLE: M-646-7026, Aviation Ordnance Intermediate Maintenance
COURSE LENGTH: 10.6 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% USMC: 0% **BACKOUT FACTOR:** 0.21

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NAMTRA MARUNIT, MCAS Cherry Point												
	USMC	USMC		237		237		237		237		237
		TOTAL:		237		237		237		237		237

PART III - TRAINING REQUIREMENTS

The following elements are not affected by the JDAM and, therefore, are not included in Part III of this NTSP:

III.A.1 Initial Training Requirements

II.A.2. Follow-on Training

II.A.2.a. Planned Courses

II.A.2.b. Unique Courses

III.A.3. Existing Training Phased Out

Note: Initial training was completed in FY 90 for the JDAM. Initial training for the JDAM is required.

PART III - TRAINING REQUIREMENTS

III.A. TRAINING COURSE REQUIREMENTS

III.A.2. FOLLOW-ON TRAINING

III.A.2.a. EXISTING COURSES

CIN, COURSE TITLE: D-646-7007, General Shipboard/NAS Weapons Department AVORD Maintenance
TRAINING ACTIVITY: MTU-4030
LOCATION, UIC: MANTRAGRU DET Mayport, 66069

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	15		15		15		15		15	ATIR
	14		14		14		14		14	Output
	1.9		1.9		1.9		1.9		1.9	AOB
	1.9		1.9		1.9		1.9		1.9	Chargeable

SOURCE: NAVY **STUDENT CATEGORY:** SELRES

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	1		1		1		1		1	ATIR
	1		1		1		1		1	Output
	0.1		0.1		0.1		0.1		0.1	AOB
	0.0		0.0		0.0		0.0		0.0	Chargeable

TRAINING ACTIVITY: MTU-4032
LOCATION, UIC: NAMTRAU Norfolk, 66046

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	89		151		95		98		95	ATIR
	136		86		88		86		86	Output
	19.3		12.1		12.5		12.1		12.1	AOB
	19.3		12.1		12.5		12.1		12.1	Chargeable

SOURCE: NAVY **STUDENT CATEGORY:** SELRES

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	4		4		4		4		4	ATIR
	4		4		4		4		4	Output
	0.5		0.5		0.5		0.5		0.5	AOB
	0.0		0.0		0.0		0.0		0.0	Chargeable

III.A.2.a. EXISTING COURSES

CIN, COURSE TITLE: E-646-7007, General Shipboard /NAS Weapons Department Maintenance
TRAINING ACTIVITY: MTU-4033
LOCATION, UIC: NAMTRAU North Island, 66065

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	73		72		68		68		68	ATIR
	66		65		61		61		61	Output
	8.0		7.9		7.4		7.4		7.4	AOB
	8.0		7.9		7.4		7.4		7.4	Chargeable

SOURCE: NAVY **STUDENT CATEGORY:** SELRES

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	1		1		1		1		1	ATIR
	1		1		1		1		1	Output
	0.1		0.1		0.1		0.1		0.1	AOB
	0.0		0.0		0.0		0.0		0.0	Chargeable

TRAINING ACTIVITY: MTU-4035
LOCATION, UIC: NAMTRAU Whidbey Island, 66058

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	33		33		33		33		33	ATIR
	30		30		30		30		30	Output
	3.6		3.6		3.6		3.6		3.6	AOB
	3.6		3.6		3.6		3.6		3.6	Chargeable

III.A.2.a. EXISTING COURSES

CIN, COURSE TITLE: M-646-7026, Aircraft Ordnance Intermediate Maintenance
TRAINING ACTIVITY: MTU-4034
LOCATION, UIC: NAMTRA MARUNIT MCAS Cherry Point, 45483

SOURCE: USMC **STUDENT CATEGORY:** USMC - AR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	226		226		226		226		226	ATIR
	226		226		226		226		226	Output
	47.7		47.7		47.7		47.7		47.7	AOB
	47.7		47.7		47.7		47.7		47.7	Chargeable

SOURCE: USMC **STUDENT CATEGORY:** SMCR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	9		9		9		9		9	ATIR
	9		9		9		9		9	Output
	1.9		1.9		1.9		1.9		1.9	AOB
	0.0		0.0		0.0		0.0		0.0	Chargeable

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

The following elements are not affected by JDAM, and therefore, are not included in this NTSP:

IV.B. Courseware Requirements

IV.B.1. Training Services

IV.C. Facility Requirements

IV.C.1. Facility Requirements Summary (Space/Support) by Activity

IV.C.2. Facility Requirements Detailed by Activity and Course

IV.C.2. Facility project Summary by Program

IV.A. TRAINING HARDWARE

IV.A.1. TTE/GPTE/SPTE/ST/GPETE/SPETE

TRAINING ACTIVITY: NATTC
LOCATION, UIC: NAS Pensacola, 63082
CIN, COURSE TITLE: C-646-2011, AO A1 School (Core)
C-646-2012, AO A1 School (Navy Difference Strand)

ITEM NUMBER	EQUIPMENT	TYPE OR RANGE OF REPAIR PARTS	QUANT REQD	DATE REQD	GFE CFE	STATUS
TTE						
001	CNU-589/E	NA	1	FY01	CFE	On Hand

TRAINING ACTIVITY: MTU-4030 NAMTRAGRUDET
LOCATION, UIC: NS Mayport, 66069
CIN, COURSE TITLE: C-646-3113, Precision Guided Weapons
C-646-4108, Weapons Department Air Launched Weapons Supervisors
C-646-4109, Weapons Department Air Launched Weapons General Ordnance

ITEM NUMBER	EQUIPMENT	TYPE OR RANGE OF REPAIR PARTS	QUANT REQD	DATE REQD	GFE CFE	STATUS
TTE						
001	CNU-589/E	NA	1	FY01	CFE	On Hand
002	AN-GYQ79 CMBRE	NA	1	FY01	CFE	On Hand
003	MPCU	NA	1	FY01	CFE	On Hand
004	JDAM MAP	NA	1	FY01	CFE	On Hand

TRAINING ACTIVITY: MTU-4032 NAMTRAU
LOCATION, UIC: NAS Norfolk, 66046
CIN, COURSE TITLE: C-646-3113, Precision Guided Weapons
C-646-4108, Weapons Department Air Launched Weapons Supervisors
C-646-4109, Weapons Department Air Launched Weapons General Ordnance

ITEM NUMBER	EQUIPMENT	TYPE OR RANGE OF REPAIR PARTS	QUANT REQD	DATE REQD	GFE CFE	STATUS
TTE						
001	CNU-589/E	NA	1	FY01	CFE	On Hand
002	AN-GYQ79 CMBRE	NA	1	FY01	CFE	On Hand
003	MPCU	NA	1	FY01	CFE	On Hand
004	JDAM MAP	NA	1	FY01	CFE	On Hand

TRAINING ACTIVITY: MTU-4033 NAMTRAU
LOCATION, UIC: NAS North Island, 66065
CIN, COURSE TITLE: C-646-3113, Precision Guided Weapons
C-646-4108, Weapons Department Air Launched Weapons Supervisors
C-646-4109, Weapons Department Air Launched Weapons General Ordnance

ITEM NUMBER	EQUIPMENT	TYPE OR RANGE OF REPAIR PARTS	QUANT REQD	DATE REQD	GFE CFE	STATUS
TTE						
001	CNU-589/E	NA	1	FY01	CFE	On Hand
002	AN-GYQ79 CMBRE	NA	1	FY01	CFE	On Hand
003	MPCU	NA	1	FY01	CFE	On Hand
004	JDAM MAP	NA	1	FY01	CFE	On Hand

TRAINING ACTIVITY: MTU-4034 NAMTRAMARU
LOCATION, UIC: MCAS Cherry Point, 66047
CIN, COURSE TITLE: C-646-3105, Aviation Ordnance Munitions Technician

IV.A.1. TTE/GPTE/SPTE/ST/GPETE/SPETE

ITEM NUMBER	EQUIPMENT	TYPE OR RANGE OF REPAIR PARTS	QUANT REQD	DATE REQD	GFE CFE	STATUS
TTE						
001	CNU-589/E	NA	1	FY01	CFE	On Hand
002	AN-GYQ79 CMBRE	NA	1	FY01	CFE	On Hand
003	MPCU	NA	1	FY01	CFE	On Hand
004	JDAM MAP	NA	1	FY01	CFE	On Hand

TRAINING ACTIVITY: MTU-4035 NAMTRAU
LOCATION, UIC: NAS Whidbey Island, 66058
CIN, COURSE TITLE: C-646-3113, Precision Guided Weapons
C-646-4108, Weapons Department Air Launched Weapons Supervisors
C-646-4109, Weapons Department Air Launched Weapons General Ordnance

ITEM NUMBER	EQUIPMENT	TYPE OR RANGE OF REPAIR PARTS	QUANT REQD	DATE REQD	GFE CFE	STATUS
TTE						
001	CNU-589/E	NA	1	FY01	CFE	On Hand
002	AN-GYQ79 CMBRE	NA	1	FY01	CFE	On Hand
003	MPCU	NA	1	FY01	CFE	On Hand
004	JDAM MAP	NA	1	FY01	CFE	On Hand

IV.A.2. TRAINING DEVICES

DEVICE: Training Guidance Sets KMU-556(D-2)/B, KMU-558(D-2)/B, KMU-559(D-2)/B for JDAM Load Drill Trainer,(LDT) GBU-31(D-2)2/B, GBU-31(D-2)4/B, GBU-32(D-2)2/B, and GBU-35(D-2)1/B

DESCRIPTION OF DEVICE: The LDT is inert and will have the same physical appearance, size, center of gravity and weight as the actual weapon. The LDTs will be issued as Training Guidance Sets to be installed on the MK 84, BLU 109, MK 83, and BLU-110 bombs, as appropriate.

MANUFACTURER: Boeing Company

CONTRACT NUMBER: NA

TEE STATUS: NA

TRAINING ACTIVITY LOCATION, UIC	QUANT REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
NATTC, NAS Pensacola AO"A" School, 63082	2	06/01	08/01	On Hand	C-646-2011 C-646-2012
Strike Fighter Weapons School Atlantic NAS Oceana, 40784	1	03/99	On Line	On Hand	D-646-0640 D-646-0647
Strike Fighter Weapons School Pacific NAS Lemoore, 35185	1	03/99	On Line	On Hand	E-646-0640 E-646-0647
MTU 1007, NAMTRAU NAS Oceana, 66045	2	10/01	01/02	TBD	C-646-9962
SWATSLANT NAS Oceana, 47157	2	01/01	On Line	On Hand	D-646-1644 D-646-1645 D-646-1648
MTU 4030, NAMTRAGRUDET NS Mayport, 66069	2	06/01	07/01	On Hand	C-646-3113 C-646-4108 C-646-4109
MTU 4032, NAMTRAU NAS Norfolk, 66046	2	06/01	07/01	On Hand	C-646-3113 C-646-4108 C-646-4109
MTU 4033, NAMTRAU NAS North Island, 66065	2	06/01	07/01	On Hand	C-646-3113 C-646-4108 C-646-4109
MTU 4034, NAMTRAU MCAS Cherry Pt, 66047	2	06/01	07/01	On Hand	C-646-3105
MTU 4035, NAMTRAU NAS Whidbey Island, 66058	2	06/01	07/01	On Hand	C-646-3113 C-646-4108 C-646-4109
VMAT 203 FREST MCAS Cherry Pt, 57080	2	TBD	TBD	TBD	C-646-3893
TOTAL:	20				

DEVICE: JPF Inert Load Trainer (ILT)

DESCRIPTION OF DEVICE: The ILT is inert and will have the same physical appearance, size and weight as the actual JPF. The ILT is used for aircraft load drill training and weapon assembly training. The JPF is currently in the Developmental Test phase. Upon successful OPEVAL, the ILTs will be forwarded to all training commands.

MANUFACTURER: Aliant

CONTRACT NUMBER: TBD

TEE STATUS: TBD

TRAINING ACTIVITY LOCATION, UIC	QUANT REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
NATTC, NAS Pensacola AO"A" School, 63082	2	TBD	TBD	DT	C-646-2011 C-646-2012
Strike Fighter Weapons School Atlantic NAS Oceana, 40784	1	TBD	TBD	DT	D-646-0640 D-646-0647
Strike Fighter Weapons School Pacific NAS Lemoore, 35185	1	TBD	TBD	DT	E-646-0640 E-646-0647
MTU 1007, NAMTRAU NAS Oceana, 66045	2	TBD	TBD	DT	C-646-9962
SWATSLANT NAS Oceana, 47157	1	TBD	TBD	DT	D-646-1644 D-646-1645 D-646-1648
MTU 4030, NAMTRAGRUDET NS Mayport, 66069	2	TBD	TBD	DT	C-646-3113 C-646-4108 C-646-4109
MTU 4032, NAMTRAU NAS Norfolk, 66046	2	TBD	TBD	DT	C-646-3113 C-646-4108 C-646-4109
MTU 4033, NAMTRAU NAS North Island, 66065	2	TBD	TBD	DT	C-646-3113 C-646-4108 C-646-4109
MTU 4034, NAMTRAU MCAS Cherry Pt, 66047	1	TBD	TBD	DT	C-646-3105
MTU 4035, NAMTRAU NAS Whidbey Island, 66058	2	TBD	TBD	TBD	C-646-3113 C-646-4108 C-646-4109
VMAT 203 FREST MCAS Cherry Pt, 57080	1	TBD	TBD	TBD	C-646-3893
NAVSCOLEOD Eglin AFB, 62640	2	TBD	TBD	TBD	A-431-0011 A-431-0012
EODTEU ONE San Diego, 30202	1	TBD	TBD	TBD	G-431-0001
EODTEU TWO Fort Story, 43505	1	TBD	TBD	TBD	G-431-0001
TOTAL:	21				

IV.A.2. TRAINING DEVICES

DEVICE: Practice EOD System Trainer, (PEST)

DESCRIPTION OF DEVICE: The Practice EOD System Trainer will be used for recognition and demonstration of Render Safe Procedures (RSPs).

MANUFACTURER: Boeing

CONTRACT NUMBER: NA

TEE STATUS: NA

TRAINING ACTIVITY LOCATION, UIC	QUANT REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
NAVSCOLEOD Eglin AFB, 62640	2	NA	On Line	On Hand	A-431-0011 A-431-0012
EODTEU ONE San Diego, 30202	1	NA	On Line	On Hand	G-431-0001
EODTEU TWO Fort Story, 43505	1	NA	On Line	On Hand	G-431-0001
TOTAL:	4				

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

TRAINING ACTIVITY: VFA-106
LOCATION, UIC: NAS Oceana, 09679
CIN, COURSE TITLE: D-2A-0601, F/A-18 Fleet Replacement Pilot Cat 1
D-2A-0602, F/A-18 Fleet Replacement Pilot Cat 2A
D-2A-0604, F/A-18 Fleet Replacement Pilot Cat 3A
D-2A-0606, F/A-18 Fleet Replacement Pilot Cat 4

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
SFTS JDAM ICW	1 Set		On Hand
SFTS JDAM Familiarization Brief	1 Set		On Hand

TRAINING ACTIVITY: VFA-125
LOCATION, UIC: NAS Lemoore, 09485
CIN, COURSE TITLE: E-2A-0601, F/A-18 Fleet Replacement Pilot Cat 1
E-2A-0602, F/A-18 Fleet Replacement Pilot Cat 2A
E-2A-0604, F/A-18 Fleet Replacement Pilot Cat 3A
E-2A-0606, F/A-18 Fleet Replacement Pilot Cat 4

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
SFTS JDAM ICW	1 Set		On Hand
SFTS JDAM Familiarization Brief	1 Set		On Hand

TRAINING ACTIVITY: VMFAT-101
LOCATION, UIC: MCAS Miramar, 45526
CIN, COURSE TITLE: M13P4B3, F/A-18 Fleet Replacement Pilot Basic and Transition
M13P3V3, F/A-18 Fleet Replacement Pilot Refresher
M13P3W3, F/A-18 Fleet Replacement Pilot Modified Refresher
M13P4C3, F/A-18 WSO Basic and Transition
M13P3R3, F/A-18 WSO Refresher
M13P3S3, F/A-18 WSO Modified Refresher

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
SFTS JDAM ICW	1 Set		On Hand
SFTS JDAM Familiarization Brief	1 Set		On Hand

TRAINING ACTIVITY: VMAT-203
LOCATION, UIC: MCAS Cherry Point, 45483
CIN, COURSE TITLE: M04P4H4, AV-8B Fleet Replacement Pilot Basic and Transition
M04P4Q4, AV-8B Fleet Replacement Pilot Refresher
M04P4R4, AV-8B Fleet Replacement Pilot Modified Refresher

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
SFTS JDAM ICW	1 Set		TBD
SFTS JDAM Familiarization Brief	1 Set		TBD

TRAINING ACTIVITY: Strike Fighter Weapons School Atlantic
LOCATION, UIC: NAS Oceana, 40784
CIN, COURSE TITLE: Strike Fighter Advanced Readiness Program (SFARP)
Strike Fighter Weapons Employment (SFWE)

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
SFTS JDAM ICW	1 Set		On Hand
SFTS JDAM Familiarization Brief	1 Set		On Hand

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

TRAINING ACTIVITY: Strike Fighter Weapons School Pacific
LOCATION, UIC: NAS Lemoore, 35185
CIN, COURSE TITLE: Strike Fighter Advanced Readiness Program (SFARP)
Strike Fighter Weapons Employment (SFWE)

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
SFTS JDAM ICW	1 Set		On Hand
SFTS JDAM Familiarization Brief	1 Set		On Hand

TRAINING ACTIVITY: VF-101
LOCATION, UIC: NAS Oceana, 09067
CIN, COURSE TITLE: D-2A-1601, F-14 Fleet Replacement Pilot Cat 1
D-2A-1602, F-14 Fleet Replacement Pilot Cat 2
D-2A-1603, F-14 Fleet Replacement Pilot Cat 3
D-2A-1604, F-14 Fleet Replacement Pilot Cat 4
D-2A-1605, F-14 Fleet Replacement Pilot Cat 5
D-2D-1601, F-14 Naval Flight Officer Cat 1
D-2D-1602, F-14 Naval Flight Officer Cat 2
D-2D-1603, F-14 Naval Flight Officer Cat 3
D-2D-1604, F-14 Naval Flight Officer Cat 4
D-2D-1605, F-14 Naval Flight Officer Cat 5

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
SFTS JDAM ICW	1 Set		TBD
SFTS JDAM Familiarization Brief	1 Set		TBD

TRAINING ACTIVITY: Strike Weapons And Tactics School Atlantic
LOCATION, UIC: NAS Oceana, 47157
CIN, COURSE TITLE: D-2D-1620, F-14 Strike Fighter Advanced Readiness Program (SFARP)
D-2D-1622, Strike Fighter (Air-to-Air) Weapons Employment (SFWE)

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
SFTS JDAM ICW	1 Set		TBD
SFTS JDAM Familiarization Brief	1 Set		TBD

TRAINING ACTIVITY: Naval Strike and Air Warfare Center N7 (Topgun)
LOCATION, UIC: NAS Fallon, 69190
CIN, COURSE TITLE: Strike Fighter Training Program (SFTP)
Strike Fighter Tactics Instructor (SFTI)
Strike Fighter Weapons and Tactics (SFWT)

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
SFTS JDAM ICW	1 Set		On Hand
SFTS JDAM Familiarization Brief	1 Set		On Hand

TRAINING ACTIVITY: MAWTS 1
LOCATION, UIC: MCAS Yuma, 55167
CIN, COURSE TITLE: Air Combat Maneuvering Instructor (ACMI)
Weapons and Tactics Instructor (WTI)

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
SFTS JDAM ICW	1 Set		On Hand
SFTS JDAM Familiarization Brief	1 Set		On Hand

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

TRAINING ACTIVITY: NATTC, AO "A" School
LOCATION, UIC: NAS Pensacola, 63082
CIN, COURSE TITLE: C-646-2011, Aviation Ordnance Common Core Class A1
C-646-2012, Aviation Ordnanceman Navy Difference Training Strand

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
JDAM Training Package	1 Set		On Hand

TRAINING ACTIVITY: SFWS Atlantic
LOCATION, UIC: NAS Oceana, 47084
CIN, COURSE TITLE: D-646-0640, F/A-18 Conventional Weapons Loading
D-646-0647, F/A-18 Conventional Release System Test

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
JDAM Training Package	1 Set		On Hand

TRAINING ACTIVITY: SFWS Pacific
LOCATION, UIC: NAS Lemoore, 35185
CIN, COURSE TITLE: E-646-0640, F/A-18 Conventional Weapons Loading
E-646-0647, F/A-18 Conventional Release System Test

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
JDAM Training Package	1 Set		On Hand

TRAINING ACTIVITY: SWATSLANT
LOCATION, UIC: NAS Oceana, 47084
CIN, COURSE TITLE: D-646-1644, F-14A/B Conventional Weapons Loading
D-646-1645, F-14A/B Integrated Weapons Team Refresher Training
D-646-0648, F-14D Integrated Weapons Team Refresher Training

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
JDAM Training Package	1 Set		TBD

TRAINING ACTIVITY: MTU-1007 NAMTRAGRUDET
LOCATION, UIC: NAS Oceana, 66045
CIN, COURSE TITLE: C-646-9962, F-14 Armament Systems Organizational Maintenance (Initial)
C-646-9963, F-14 Armament Systems Organizational Maintenance (Career)

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
JDAM Training Package	1 Set		TBD

TRAINING ACTIVITY: VMAT-203 FREST
LOCATION, UIC: MCAS Cherry Point, 57080
CIN, COURSE TITLE: C-646-3893, AV-8B Conventional Weapons Loading
C-646-9888, AV-8B Aircraft Ordnance Technician Integrated Organizational Maintenance

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
JDAM Training Package	1 Set		On Hand

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

TRAINING ACTIVITY: MTU-4030 NAMTRAGRUDET
LOCATION, UIC: NS Mayport, 66069
CIN, COURSE TITLE: C-646-3113, Precision Guided Weapons
C-646-4108, Weapons Department General Aviation Ordnance Supervisor
C-646-4109, Weapons Department General Aviation Ordnance

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
JDAM Training Package	1 Set		On Hand

TRAINING ACTIVITY: MTU-4032 NAMTRAU
LOCATION, UIC: NAS Norfolk, 66046
CIN, COURSE TITLE: C-646-3113, Precision Guided Weapons
C-646-4108, Weapons Department General Aviation Ordnance Supervisor
C-646-4109, Weapons Department General Aviation Ordnance

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
JDAM Training Package	1 Set		On Hand

TRAINING ACTIVITY: MTU-4033 NAMTRAU
LOCATION, UIC: NAS North Island, 66065
CIN, COURSE TITLE: C-646-3113, Precision Guided Weapons
C-646-4108, Weapons Department General Aviation Ordnance Supervisor
C-646-4109, Weapons Department General Aviation Ordnance

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
JDAM Training Package	1 Set		On Hand

TRAINING ACTIVITY: MTU-4034 NAMTRAU
LOCATION, UIC: MCAS Cherry Point, 66047
CIN, COURSE TITLE: C-646-3105, Aviation Ordnance Intermediate Maintenance Technician

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
JDAM Training Package	1 Set		On Hand

TRAINING ACTIVITY: MTU-4035 NAMTRAU
LOCATION, UIC: NAS Whidbey Island, 66058
CIN, COURSE TITLE: C-646-3113, Precision Guided Weapons
C-646-4108, Weapons Department General Aviation Ordnance Supervisor
C-646-4109, Weapons Department General Aviation Ordnance

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
JDAM Training Package	1 Set		On Hand

TRAINING ACTIVITY: NAVSCOLEOD
LOCATION, UIC: Eglin AFB, 62640
CIN, COURSE TITLE: A-431-0011, EOD Phase II (Navy)
A-431-0012, EOD Phase II

TYPE OF MATERIAL OR AID	QUANT REQD	DATE REQD	STATUS
JDAM Source Data	1 Set		On Hand

IV.B.3. TECHNICAL MANUALS

TRAINING ACTIVITY: VFA-106
LOCATION, UIC: NAS Oceana, 09679
CIN, COURSE TITLE: D-2A-0601, F/A-18 Fleet Replacement Pilot Cat 1
D-2A-0602, F/A-18 Fleet Replacement Pilot Cat 2A
D-2A-0604, F/A-18 Fleet Replacement Pilot Cat 3A
D-2A-0606, F/A-18 Fleet Replacement Pilot Cat 4

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
NATOPS Flight Manual Navy Model F/A-18A/B/C/D, A1-F18AC-NFM-000	Hard copy	6		On Board
NATOPS Pocket Checklist, A1-F18AC-NFM-500	Hard copy	6		On Board
Tactical Manual, A1-F18AC-TAC-000	Hard copy	6		On Board
Tactical Manual Pocket Guide, A1-F18AC-TAC-300	Hard copy	6		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

TRAINING ACTIVITY: VFA-125
LOCATION, UIC: NAS Lemoore, 09485
CIN, COURSE TITLE: E-2A-0601, F/A-18 Fleet Replacement Pilot Cat 1
E-2A-0602, F/A-18 Fleet Replacement Pilot Cat 2A
E-2A-0604, F/A-18 Fleet Replacement Pilot Cat 3A
E-2A-0606, F/A-18 Fleet Replacement Pilot Cat 4

NATOPS Flight Manual Navy Model F/A-18A/B/C/D, A1-F18AC-NFM-000	Hard copy	6		On Board
NATOPS Pocket Checklist, A1-F18AC-NFM-500	Hard copy	6		On Board
Tactical Manual, A1-F18AC-TAC-000	Hard copy	6		On Board
Tactical Manual Pocket Guide, A1-F18AC-TAC-300	Hard copy	6		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

TRAINING ACTIVITY: SFWS Atlantic
LOCATION, UIC: NAS Oceana, 40784
CIN, COURSE TITLE: SFARP
SFWE

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
NATOPS Flight Manual Navy Model F/A-18A/B/C/D, A1-F18AC-NFM-000	Hard copy	6		On Board
NATOPS Pocket Checklist, A1-F18AC-NFM-500	Hard copy	6		On Board
Tactical Manual, A1-F18AC-TAC-000	Hard copy	6		On Board
Tactical Manual Pocket Guide, A1-F18AC-TAC-300	Hard copy	6		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

IV.B.3. TECHNICAL MANUALS

TRAINING ACTIVITY: SFWS Pacific
LOCATION, UIC: NAS Lemoore, 35185
CIN, COURSE TITLE: SFARP
SFWE

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
NATOPS Flight Manual Navy Model F/A-18A/B/C/D, A1-F18AC-NFM-000	Hard copy	6		On Board
NATOPS Pocket Checklist, A1-F18AC-NFM-500	Hard copy	6		On Board
Tactical Manual, A1-F18AC-TAC-000	Hard copy	6		On Board
Tactical Manual Pocket Guide, A1-F18AC-TAC-300	Hard copy	6		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

TRAINING ACTIVITY: VMFAT-101
LOCATION, UIC: MCAS Miramar, 45526
CIN, COURSE TITLE: M13P4B3, F/A-18 Fleet Replacement Pilot Basic and Transition
M13P3V3, F/A-18 Fleet Replacement Pilot Refresher
M13P3W3, F/A-18 Fleet Replacement Pilot Modified Refresher
M13P4C3, F/A-18 WSO Basic and Transition
M13P3R3, F/A-18 WSO Refresher
M13P3S3, F/A-18 WSO Modified Refresher

NATOPS Flight Manual Navy Model F/A-18A/B/C/D, A1-F18AC-NFM-000	Hard copy	6		On Board
NATOPS Pocket Checklist, A1-F18AC-NFM-500	Hard copy	6		On Board
Tactical Manual, A1-F18AC-TAC-000	Hard copy	6		On Board
Tactical Manual Pocket Guide, A1-F18AC-TAC-300	Hard copy	6		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

IV.B.3. TECHNICAL MANUALS

TRAINING ACTIVITY: VF-101
LOCATION, UIC: NAS Oceana, 09067
CIN, COURSE TITLE: D-2A-1601, F-14 Fleet Replacement Pilot Cat 1
D-2A-1602, F-14 Fleet Replacement Pilot Cat 2
D-2A-1603, F-14 Fleet Replacement Pilot Cat 3
D-2A-1604, F-14 Fleet Replacement Pilot Cat 4
D-2A-1605, F-14 Fleet Replacement Pilot Cat 5
D-2D-1601, F-14 Naval Flight Officer Cat 1
D-2D-1602, F-14 Naval Flight Officer Cat 2
D-2D-1603, F-14 Naval Flight Officer Cat 3
D-2D-1604, F-14 Naval Flight Officer Cat 4
D-2D-1605, F-14 Naval Flight Officer Cat 5

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
NATOPS Flight Manual Navy Model F-14 A/B/D, 01-F14AAA-1	Hard copy	6		On Board
NATOPS Pocket Checklist, 01-F14AAA-1B	Hard copy	6		On Board
Tactical Manual, NA-01-F14AAA-1T (Air to Air)	Hard copy	6		On Board
Tactical Manual, NA-01-F14AAA-1T-1 (Air to Ground)	Hard copy	6		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

TRAINING ACTIVITY: Strike Weapons And Tactics School Atlantic
LOCATION, UIC: NAS Oceana, 47157
CIN, COURSE TITLE: D-2D-1620, F-14 Strike Fighter Advanced Readiness Program (SFARP)
D-2D-1622, Strike Fighter (Air-to-Air) Weapons Employment (SFWE)

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
NATOPS Flight Manual Navy Model F-14 A/B/D, 01-F14AAA-1	Hard copy	6		On Board
NATOPS Pocket Checklist, 01-F14AAA-1B	Hard copy	6		On Board
Tactical Manual, NA-01-F14AAA-1T (Air to Air)	Hard copy	6		On Board
Tactical Manual, NA-01-F14AAA-1T-1 (Air to Ground)	Hard copy	6		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

IV.B.3. TECHNICAL MANUALS

TRAINING ACTIVITY: MAWTS
LOCATION, UIC: MCAS Yuma, 55167
CIN, COURSE TITLE: Air Combat Maneuvering Instructor (ACMI)
Weapons and Tactics Instructor (WTI)

NATOPS Flight Manual, A1-AV8BB-NFM-000	Hard copy	6	On Board
NATOPS Pocket Checklist, A1-AV8BB-NFM-500	Hard copy	6	On Board
Tactical Manual, A1-AV8BB-TAC-000 VOL 1	Hard copy	6	On Board
Tactical Manual, A1-AV8BB-TAC-050 VOL 2	Hard copy	6	On Board
Tactical Manual Pocket Guide, A1-AV8BB-TAC-300	Hard copy	6	On Board
NATOPS Flight Manual Navy Model F/A-18A/B/C/D, A1-F18AC-NFM-000	Hard copy	6	On Board
NATOPS Pocket Checklist, A1-F18AC-NFM-500	Hard copy	6	On Board
Tactical Manual, A1-F18AC-TAC-000	Hard copy	6	On Board
Tactical Manual Pocket Guide, A1-F18AC-TAC-300	Hard copy	6	On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

TRAINING ACTIVITY: SFWS Atlantic
LOCATION, UIC: NAS Oceana, 47084
CIN, COURSE TITLE: D-646-0640, F/A-18 Conventional Weapons Loading
D-646-0647, F/A-18 Conventional Release System Test

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
Airborne Weapons/Stores Loading Manual, A1-F18AE-LWS-000	Hard copy	10		On Board
Airborne Weapons Maintenance Manual Mk 80/BLU Series Bombs, MK 77 Fire Bombs and Practice Bombs Intermediate and Organizational Level Activities	Hard copy	10		On Board
Airborne Weapons Assembly Manual Paveway II/ Paveway III/ GBU Intermediate and Organizational Maintenance Activities	Hard copy	10		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

IV.B.3. TECHNICAL MANUALS

TRAINING ACTIVITY: SFWS Pacific
LOCATION, UIC: NAS Lemoore, 35185
CIN, COURSE TITLE: E-646-0640, F/A-18 Conventional Weapons Loading
E-646-0647, F/A-18 Conventional Release System Test

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
Airborne Weapons/Stores Loading Manual, A1-F18AE-LWS-000	Hard copy	10		On Board
Airborne Weapons Maintenance Manual Mk 80/BLU Series Bombs, MK 77 Fire Bombs and Practice Bombs Intermediate and Organizational Level Activities	Hard copy	10		On Board
Airborne Weapons Assembly Manual Paveway II/ Paveway III/ GBU Intermediate and Organizational Maintenance Activities	Hard copy	10		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

TRAINING ACTIVITY: SWATSLANT
LOCATION, UIC: NAS Oceana, 47084
CIN, COURSE TITLE: D-646-1644, F-14A/B Conventional Weapons Loading
D-646-1645, F-14A/B Integrated Weapons Team Refresher Training
D-646-0648, F-14D Integrated Weapons Team Refresher Training

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
Airborne Weapons/Stores Loading Manual, F-14 A/B/D, 01-F14AAA-75	Hard copy	10		On Board
Release & Control F-14 A/B (Basic), 01-F14AAA-75-1A1	Hard copy	10		On Board
Release & Control F-14 A/B (Missiles), 01-F14AAA-75-1A2	Hard copy	10		On Board
Release & Control F-14 D (Basic), 01-F14AAD-75-1A1	Hard copy	10		On Board
Release & Control F-14 D (Missiles), 01-F14AAD-75-1A2	Hard copy	10		On Board
Airborne Weapons Maintenance Manual Mk 80/BLU Series Bombs, MK 77 Fire Bombs and Practice Bombs Intermediate and Organizational Level Activities	Hard copy	10		On Board
Airborne Weapons Assembly Manual Paveway II/ Paveway III/ GBU Intermediate and Organizational Maintenance Activities	Hard copy	10		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

IV.B.3. TECHNICAL MANUALS

TRAINING ACTIVITY: MTU-1007 NAMTRAGRUDET
LOCATION, UIC: NAS Oceana, 66045
CIN, COURSE TITLE: C-646-9962, F-14 Armament Systems Organizational Maintenance (Initial)
C-646-9963, F-14 Armament Systems Organizational Maintenance (Career)

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
Airborne Weapons/Stores Loading Manual, F-14 A/B/D, 01-F14AAA-75	Hard copy	10		On Board
Release & Control F-14 A/B (Basic), 01-F14AAA-75-1A1	Hard copy	10		On Board
Release & Control F-14 A/B (Missiles), 01-F14AAA-75-1A2	Hard copy	10		On Board
Release & Control F-14 D (Basic), 01-F14AAD-75-1A1	Hard copy	10		On Board
Release & Control F-14 D (Missiles), 01-F14AAD-75-1A2	Hard copy	10		On Board
Airborne Weapons Maintenance Manual Mk 80/BLU Series Bombs, MK 77 Fire Bombs and Practice Bombs Intermediate and Organizational Level Activities	Hard copy	10		On Board
Airborne Weapons Assembly Manual Paveway II/ Paveway III/ GBU Intermediate and Organizational Maintenance Activities	Hard copy	10		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

TRAINING ACTIVITY: VMAT-203 FREST
LOCATION, UIC: MCAS Cherry Point, 57080
CIN, COURSE TITLE: C-646-3893, AV-8B Conventional Weapons Loading
C-646-9888, AV-8B Aircraft Ordnance Technician Integrated Organizational Maintenance

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
Airborne Weapons Stores Loading Manual, A1-AV8BB-LWS-000	Hard copy	10		On Board
Release & Control (Basic), A1-AV8BB-LWS-200	Hard copy	10		On Board
Release & Control (Missiles), Air to Air A1-AV8BB-LWS-210	Hard copy	10		On Board
Airborne Weapons Maintenance Manual Mk 80/BLU Series Bombs, MK 77 Fire Bombs and Practice Bombs Intermediate and Organizational Level Activities	Hard copy	10		On Board
Airborne Weapons Assembly Manual Paveway II/ Paveway III/ GBU Intermediate and Organizational Maintenance Activities	Hard copy	10		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

IV.B.3. TECHNICAL MANUALS

TRAINING ACTIVITY: MTU-4030 NAMTRAGRUDET
LOCATION, UIC: NS Mayport, 66069
CIN, COURSE TITLE: C-646-3113, Precision Guided Weapons
C-646-4108, Weapons Department General Aviation Ordnance Supervisor
C-646-4109, Weapons Department General Aviation Ordnance

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
Airborne Weapons Maintenance Manual Mk 80/BLU Series Bombs, MK 77 Fire Bombs and Practice Bombs Intermediate and Organizational Level Activities	Hard copy	13		On Board
Airborne Weapons Assembly Manual Paveway II/ Paveway III/ GBU Intermediate and Organizational Maintenance Activities	Hard copy	13		On Board
Airborne Weapons Packaging/Handling/ Stowage (Shipboard) Volume I, NA 11-120A-1.1	Hard copy	13		On Board
Airborne Weapons Packaging/Handling/ Stowage (Shipboard) Volume II, NA 11-120A-1.2	Hard copy	13		On Board
Airborne Weapons Handling Equipment (Shipboard), NAVAIR 19-100-2	Hard copy	13		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

TRAINING ACTIVITY: MTU-4032 NAMTRAU
LOCATION, UIC: NAS Norfolk, 66046
CIN, COURSE TITLE: C-646-3113, Precision Guided Weapons
C-646-4108, Weapons Department General Aviation Ordnance Supervisor
C-646-4109, Weapons Department General Aviation Ordnance

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
Airborne Weapons Maintenance Manual Mk 80/BLU Series Bombs, MK 77 Fire Bombs and Practice Bombs Intermediate and Organizational Level Activities	Hard copy	13		On Board
Airborne Weapons Assembly Manual Paveway II/ Paveway III/ GBU Intermediate and Organizational Maintenance Activities	Hard copy	13		On Board
Airborne Weapons Packaging/Handling/ Stowage (Shipboard) Volume I, NA 11-120A-1.1	Hard copy	13		On Board
Airborne Weapons Packaging/Handling/ Stowage (Shipboard) Volume II, NA 11-120A-1.2	Hard copy	13		On Board
Airborne Weapons Handling Equipment (Shipboard), NAVAIR 19-100-2	Hard copy	13		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

IV.B.3. TECHNICAL MANUALS

TRAINING ACTIVITY: MTU-4033 NAMTRAU
LOCATION, UIC: NAS North Island, 66065
CIN, COURSE TITLE: C-646-3113, Precision Guided Weapons
C-646-4108, Weapons Department General Aviation Ordnance Supervisor
C-646-4109, Weapons Department General Aviation Ordnance

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
Airborne Weapons Maintenance Manual Mk 80/BLU Series Bombs, MK 77 Fire Bombs and Practice Bombs Intermediate and Organizational Level Activities	Hard copy	13		On Board
Airborne Weapons Assembly Manual Paveway II/ Paveway III/ GBU Intermediate and Organizational Maintenance Activities	Hard copy	13		On Board
Airborne Weapons Packaging/Handling/ Stowage (Shipboard) Volume I, NA 11-120A-1.1	Hard copy	13		On Board
Airborne Weapons Packaging/Handling/ Stowage (Shipboard) Volume II, NA 11-120A-1.2	Hard copy	13		On Board
Airborne Weapons Handling Equipment (Shipboard), NAVAIR 19-100-2	Hard copy	13		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

TRAINING ACTIVITY: MTU-4034 NAMTRAU
LOCATION, UIC: MCAS Cherry Point, 66047
CIN, COURSE TITLE: C-646-3105, Aviation Ordnance Intermediate Maintenance Technician

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
Airborne Weapons Maintenance Manual Mk 80/BLU Series Bombs, MK 77 Fire Bombs and Practice Bombs Intermediate and Organizational Level Activities	Hard copy	13		On Board
Airborne Weapons Assembly Manual Paveway II/ Paveway III/ GBU Intermediate and Organizational Maintenance Activities	Hard copy	13		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

IV.B.3. TECHNICAL MANUALS

TRAINING ACTIVITY: MTU-4035 NAMTRAU
LOCATION, UIC: NAS Whidbey Island, 66058
CIN, COURSE TITLE: C-646-3113, Precision Guided Weapons
C-646-4108, Weapons Department General Aviation Ordnance Supervisor
C-646-4109, Weapons Department General Aviation Ordnance

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
Airborne Weapons Maintenance Manual Mk 80/BLU Series Bombs, MK 77 Fire Bombs and Practice Bombs Intermediate and Organizational Level Activities	Hard copy	13		On Board
Airborne Weapons Assembly Manual Paveway II/ Paveway III/ GBU Intermediate and Organizational Maintenance Activities	Hard copy	13		On Board
Airborne Weapons Packaging/Handling/ Stowage (Shipboard) Volume I, NA 11-120A-1.1	Hard copy	13		On Board
Airborne Weapons Packaging/Handling/ Stowage (Shipboard) Volume II, NA 11-120A-1.2	Hard copy	13		On Board
Airborne Weapons Handling Equipment (Shipboard), NAVAIR 19-100-2	Hard copy	13		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

TRAINING ACTIVITY: NAVSCOLEOD
LOCATION, UIC: Eglin AFB FL, 62640
CIN, COURSE TITLE: A-431-0011, EOD Phase II (Navy)
A-431-0012, EOD Phase II

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
Explosive Ordnance Disposal Book, EODB6OG-02-2-34-5	CD-ROM	150		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

TRAINING ACTIVITY: EODTEU ONE
LOCATION, UIC: San Diego CA, 30202
CIN, COURSE TITLE: G-431-0001, EOD Pre-deployment Team Training

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
Explosive Ordnance Disposal Book, EODB6OG-02-2-34-5	CD-ROM	4		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

TRAINING ACTIVITY: EODTEU TWO
LOCATION, UIC: Fort Story VA, 43505
CIN, COURSE TITLE: G-431-0001, EOD Pre-deployment Team Training

TECHNICAL MANUAL TITLE, NUMBER	MEDIUM	QUANT REQD	DATE REQD	STATUS
Explosive Ordnance Disposal Book, EODB6OG-02-2-34-5	CD-ROM	4		On Board

NOTE: For a complete listing of required technical manuals refer to applicable training course control document.

PART V - MPT MILESTONES

COG CODE	MPT MILESTONES	DATE	STATUS
PMA 205	Commence Analysis of Manpower, Personnel & Training Requirements (ABF)	Jan 90	Completed
PMA 201	ILSP Promulgated	May 90	Completed
Boeing	Commence Contractor (DT) Training Services	Jul 95	Completed
PMA 201/NAWC-WD	Commence TECHEVAL Training	Jul 96	Completed
PMA 201/NAWC-WD	Commence OPEVAL Training	Sep 97	Completed
COMOPTEVFOR	Commence OPEVAL	Oct 97	Completed
PMA 201/NAWC-WD	Curricula Materials Delivered	Jul 98	Completed
NAVPERS	Commence Programming for Officer Training	Nov 98	Completed
SFWS/NAMTRA	Commence Follow-On/Replacement Training	Jan 99	In Place
PMA 201	Commence Early Operational Fielding (Operation Southern Watch)		Completed
PMA 205	Begin NTSP Update	Oct 00	Completed
PMA 201	Fleet Introduction	Mar 01	Completed
PMA 205	Promulgate Draft NTSP to ALCON for Review & Comment	Jun 01	Completed
PMA 205	Submit Proposed NTP to OPNAV for Approval	Jan 03	Completed
CNO N789	Approve and Promulgate NTSP	Jan 03	Completed

PART VI - DECISION ITEMS/ACTION REQUIRED

DECISION ITEM OR ACTION REQUIRED	COMMAND ACTION	DUE DATE	STATUS
No Action Items Pending.			

PART VII - POINTS OF CONTACT

NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL	TELEPHONE NUMBERS
CAPT John Chase Deputy Aviation Maintenance Programs CNO, N781B john.chase@navy.mil	**COMM:** (703) 604-7747 **DSN:** 664-7747 **FAX:** (703) 604-6972
CDR Wanda Janus Resource Sponsor / Program Sponsor CNO, N785D1 janus.wanda@navy.mil	**COMM:** (703) 602-7720 **DSN:** 227- 7720 **FAX:** (703) 602-8523
CAPT Terry Merritt Professional Development Division Director CNO, N00T3 merritt.terry@navy.mil	**COMM:** (703) 604-7730 **DSN:** 664-7730 **FAX:** (703) 604-6939
AZCS Gary Greenlee NTSP Manager CNO, N789H7 greenlee.gary@navy.mil	**COMM:** (703) 604-7709 **DSN:** 664-7709 **FAX:** (703) 604-6939
LCDR Jim Arend Aviation Manpower CNO, N122C1C n122c1c@bupers.navy.mil	**COMM:** (703) 695-3223 **DSN:** 225-3223 **FAX:** (703) 614-5308
Mr. Robert Zweibel Human Performance and Acquisition Assessment Division CNO, N00T46 robert.zweibel@navy.mil	**COMM:** (703) 602-5151 **DSN:** 332-5151 **FAX:** (703) 602-5175
CAPT David Mahoney Head, Reserve Air Logistics Programs CNO, N0955F mahoney.david@navy.mil	**COMM:** (703) 601-1872 **DSN:** 329-1872 **FAX:** (703) 601-0561
COL David L Barraclough, USMC Branch Head, USMC Aviation Manpower Management CMC, ASM-1 barracloughdl@hqmc.usmc.mil	**COMM:** (703) 614-1244 **DSN:** 224-1244 **FAX:** (703) 614-1309
LTCOL Angela Clingman, USMC USMC Aircraft Maintenance Officer CMC, ASL-33 clingmanab@hqmc.usmc.mil	**COMM:** (703) 614-1187 **DSN:** 224-1187 **FAX:** (703) 697-7343
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CAPT Pat Salsman Branch Head, Training Requirements and Assessments COMLANTFLT, N72 salsmancp@clf.navy.mil	**COMM:** (757) 836-6495 **DSN:** 836-6495 **FAX:** (757) 836-6794

PART VII - POINTS OF CONTACT

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Mr. Bob Long Deputy Director for Training COMPACFLT, N70 longrh@cpf.navy.mil	**COMM:** (808) 471-8513 **DSN:** 315-471-8513 (OUTCONUS) **FAX:** (808) 471-8596
YN1 Dashawn Simmons Selected Reservist Quota Control COMNAVAIRESFOR, N-333 simmonsd@cnrf.nola.navy.mil	**COMM:** (504) 678-1850 **DSN:** 678-1850 **FAX:** (504) 678-5064
CAPT Robert Holland Deputy Assistant, Chief of Naval Personnel for Distribution NAVPER, PERS-4B p4b@persnet.navy.mil	**COMM:** (901) 874-3529 **DSN:** 882-3529 **FAX:** (901) 874-2606
CDR Dave Nelson Branch Head, Aviation Enlisted Assignments NAVPERSCOM, PERS-404 p404@persnet.navy.mil	**COMM:** (901) 874-3691 **DSN:** 882-3691 **FAX:** (901) 874-2642
MAJ Henry Domingue, USMC Head, ACE Branch, TFS Division MCCDC, C5325A dominguehj@mccdc.usmc.mil	**COMM:** (703) 784-6241 **DSN:** 278-6241 **FAX:** (703) 784-6072
MSGT Mark Crampton, USMC USMC AMTCS Coordinator MCCDC, C4610 cramptonmd@tecom.usnc.mil	**COMM:** (703) 784-3708 **DSN:** 278-3708 **FAX:** (703) 784-3729
MSGT Jerry Moore, USMC USMC MATMEP Coordinator MCCDC, C473 moorejj1@tecom.usmc.mil	**COMM:** (703) 784-3710 **DSN:** 278-3710 **FAX:** (703) 784-3729
MGYSGT Joseph Townley, USMC USMC AMTCS Coordinator MCCDC, C473 townleyjb@tecom.usmc.mil	**COMM:** (703) 784-3707 **DSN:** 278-3707 **FAX:** (703) 784-3729
CDR Rose Wynn Aviation Department Head NAVMAC, 30 rose.wynn@navmac.navy.mil	**COMM:** (901) 874-6218 **DSN:** 882-6218 **FAX:** (901) 874-6471
SKCS Parthina Jacobs NTSP Coordinator (Assistant) NAVMAC, 32 parthina.jacobs@navmac.navy.mil	**COMM:** (901) 874-6483 **DSN:** 882-6483 **FAX:** (901) 874-6471

PART VII - POINTS OF CONTACT

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Mr. Brett Hollowell NETC/NPDC Coordinator NETC, N7C124 brett.hollowell@cnet.navy.mil	**COMM:** (757) 444-2269 ext. 3225 **DSN:** 564-2269 ext. 3225 **FAX:** (757) 445-8082
Mr. Steve Berk NTSP Distribution NETC, ETS-23 stephen-g.berk@cnet navy.mil	**COMM:** (850) 452-8919 **DSN:** 922-8919 **FAX:** (850) 452-4853
CDR Erich Blunt Aviation Technical Training NETC, N781 cdr-erich.blunt@cnet.navy.mil	**COMM:** (850) 452-4915 **DSN:** 922-4915 **FAX:** (850) 452-4901
AVCM Robert Claire PQS Development Group LCPO NETPDTC avcm-robert.claire@cnet.navy.mil	**COMM:** (850) 452-1001 ext. 2246 **DSN:** 922-1001 ext. 2246 **FAX:** (850) 452-1764
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NAVAIR

SUMMARY OF COMMENTS

ON THE

JOINT DIRECT ATTACK MUNITION (JDAM)

GBU-31(V)2/B, GBU-31(V)4B

GBU-32(V)2.B, GBU-35(V)1/B

DRAFT NAVY TRAINING SYSTEM PLAN

OF JUNE 2001

N88-NTSP-A-50-9104A/D

Prepared by: AE1 Roy Brown, AIR-3.4.1
Contact at: (301) 757-8258
Date submitted: 24 October 2002

COMMENTS / RECOMMENDATIONS ON THE
JOINT DIRECT ATTACK MUNITION (JDAM)
N88-NTSP-A-50-9104A/D

TABLE OF CONTENTS

ACTIVITIES PROVIDING COMMENTS:

COMMENTS / RECOMMENDATIONS ON THE
JOINT DIRECT ATTACK MUNITION (JDAM)
DRAFT NAVY TRAINING SYSTEM PLAN

ACTIVITY NAME: Commander, Naval Air Forces Pacific

COMMENT: Page I-12

Incomplete. Add FZU61/B to initiators.

INCORPORATED: YES

REMARKS: None

COMMENT: Page I-20

Under training devices. It states there are no CATMs. What are we flying at Fallon?

INCORPORATED: NO

REMARKS: Assets flown at Fallon are Tactical Kits on inert bomb bodies with blown batteries.

COMMENT: Page I-20

Under training devices. Last sentence states that JDAM is part of the NCEA. As if this date no NCEA has been established for JDAM.

INCORPORATED: NO

REMARKS: Being worked by Program Office

COMMENT: Page VII-2

Wrong phone number. Change phone number to COMM (619)545-2790 or DSN 735-2790.

INCORPORATED: YES

REMARKS: None

COMMENTS / RECOMMENDATIONS ON THE JOINT DIRECT ATTACK MUNITION (JDAM) DRAFT NAVY TRAINING SYSTEM PLAN

ACTIVITY NAME: Naval Air Maintenance Training Group

COMMENT: Page I-24 Table I-7

Change course number C-646-3111 to C-122-3111

INCORPORATED: YES

REMARKS: None

COMMENT: Page I-25

Under CIN, change course number from C-646-3111 to C-122-3111

INCORPORATED: YES

REMARKS: None

COMMENT: Page I-27

RFT date states currently available, but on page I-24 RFT states in revision.

INCORPORATED: YES

REMARKS: None

COMMENT: Page I-28

RFT date states currently available, but on page I-24 RFT states in revision.

INCORPORATED: YES

REMARKS: None

COMMENT: Page I-30, Table I-9

Student Profiles, AO 6802 Strike Intermediate Armament Maintenance is incorrect. Change to read " Strike/Armament Intermediate Repair.

INCORPORATED: YES

REMARKS: None

COMMENT: Page I-32, Fig. I-7

AO 6801 course number C-122-3113 is incorrect. Change to C-646-3113.

INCORPORATED: YES

REMARKS: None

COMMENTS / RECOMMENDATIONS ON THE JOINT DIRECT ATTACK MUNITION (JDAM) DRAFT NAVY TRAINING SYSTEM PLAN

COMMENT: Page IV-2

Course number is incorrect. Change C-122-3113 to read C-646-3113.

INCORPORATED: YES

REMARKS: None

COMMENT: Page IV-2

Change MTU 4033 Norfolk to North Island. Also change MTU 4034 to read "NAMTRAMARU" vs. NAMTRAU.

INCORPORATED: YES

REMARKS: None

COMMENT: Page IV-3

Change course number C-122-3113 to C-646-3113.

INCORPORATED: YES

REMARKS: None

COMMENTS / RECOMMENDATIONS ON THE
JOINT DIRECT ATTACK MUNITION (JDAM)
DRAFT NAVY TRAINING SYSTEM PLAN

ACTIVITY NAME: Naval Air Warfare Center, Weapons Division China Lake

COMMENT: Page vi

Acronym TAS definition is incorrect. Change the "A" to actuator vice actuation.

INCORPORATED: YES

REMARKS: None

COMMENT: Page I-16

First line. Remove F/A-18E/F it is identified on the previous page in the table.

INCORPORATED: YES

REMARKS: None

COMMENT: Page I-16

Last line of paragraph c should be deleted. It is already mentioned earlier in the paragraph.

INCORPORATED: YES

REMARKS: None

COMMENT: Page I-17

"Updates to either the MAP or the OFP software will be controlled through the current Navy Technical Directive (NTD) system" should be deleted because updates are not processed through that system.

INCORPORATED: YES

REMARKS: None

COMMENT: Page I-37

Don't understand paragraph L being N/A. The government does furnish equipment (such as the AN/GYQ-79 Digital Computer Set) to the Fleet, training schools, ect.

INCORPORATED: NO

REMARKS: CMBRE is not part of JDAM. It is a totally independent system, which is tied to many weapons.

COMMENTS / RECOMMENDATIONS ON THE
JOINT DIRECT ATTACK MUNITION (JDAM)
DRAFT NAVY TRAINING SYSTEM PLAN

ACTIVITY NAME: Marine Aviation Logistics Squadron Thirty-One

COMMENT: Page I-12

On page 1-12 the JDAM description should give the different weights and dimensions along with the individual components of the JDAM and their function.

INCORPORATED: NO

REMARKS: Weights and dimensions of the individual tail kit assemblies are identified in table I-1 page I-14. No value is added to the weights and dimensions of strakes, lugs, Mk-122, etc.

COMMENT: Page I-12

It is stated that the Mk 122 switch is suitable for all configurations. According to the matrix sent out by NAVAIR, the Mk122 switch cannot be used with the FMU143E/B fuse. Clarify to read suitable for all Mk 80 series configurations.

INCORPORATED: Yes

REMARKS: None

COMMENTS / RECOMMENDATIONS ON THE
JOINT DIRECT ATTACK MUNITION (JDAM)
DRAFT NAVY TRAINING SYSTEM PLAN

ACTIVITY NAME: Naval School, Explosive Ordnance Disposal

COMMENT: Page IV-6

NAVSCLEOD requires an increase in the number of PEST (from 1 to 2) per site.

INCORPORATED: YES

REMARKS: None

COMMENT: Page IV-4

NAVSCLEOD requires an increase in the number of ILT (from 1 to 2) per site.

INCORPORATED: YES

REMARKS: None

COMMENT: General

What information is available on the DSU-33A & FZU-55B?

INCORPORATED: NO

REMARKS: This was not a comment for the NTSP. It was a search for technical information. AOCS Soriano has for action.

COMMENTS / RECOMMENDATIONS ON THE
JOINT DIRECT ATTACK MUNITION (JDAM)
DRAFT NAVY TRAINING SYSTEM PLAN

ACTIVITY NAME: SMT Inc. Contactor

COMMENT: Page Vii-3

Change Contractor POC listed to Tim Carroll

INCORPORATED: YES

REMARKS: None